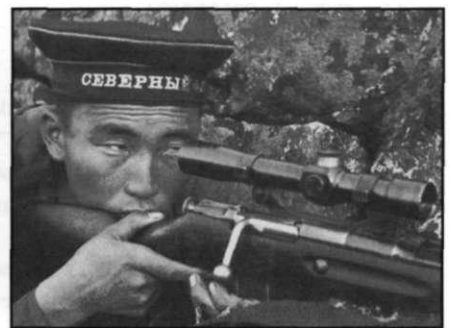
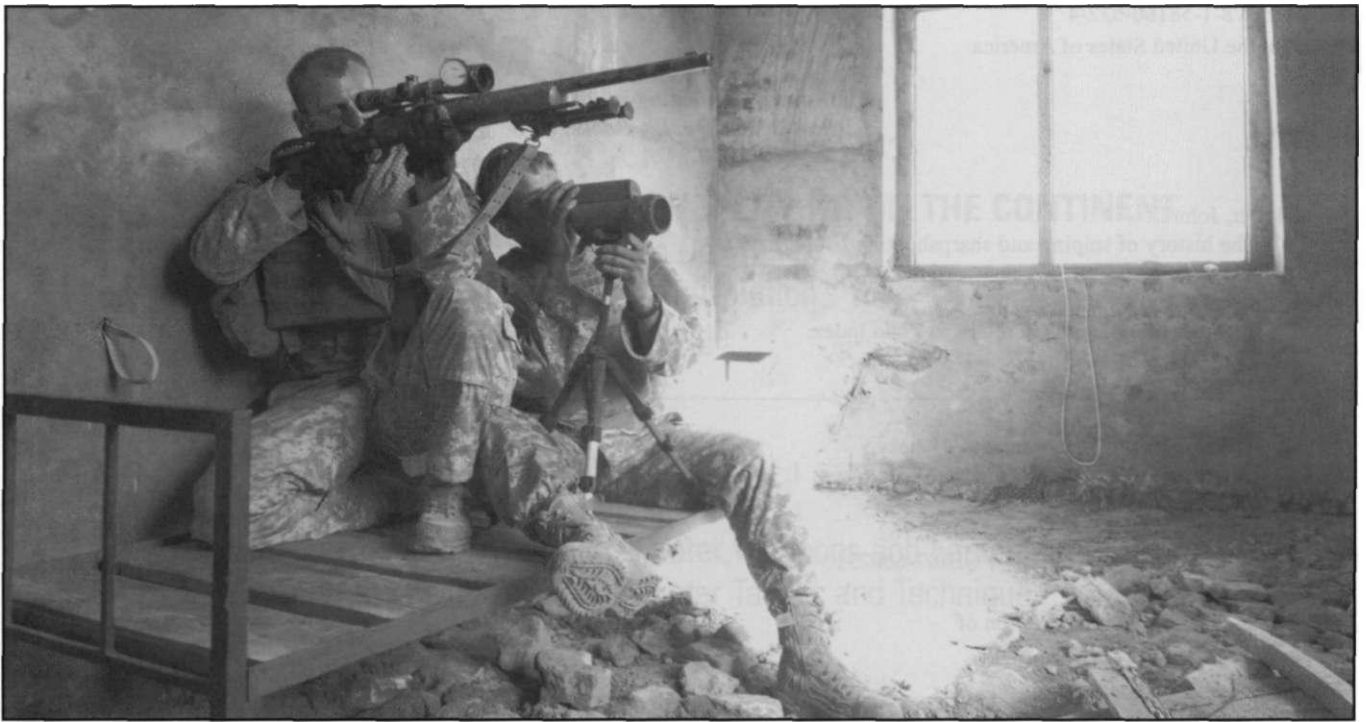


THE HISTORY OF SNIPING AND SHARPSHOOTING



Major John L. Plaster, USAR (Ret.)

THE HISTORY OF SNIPING AND SHARPSHOOTING



PALADIN PRESS • BOULDER, COLORADO

Major John L. Plaster, USAR (Ret.)

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by Major John L. Plaster, USAR (ret.)

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It is fitting and proper that this book is dedicated to

Colonel Thompson's Battalion of

RIFLEMEN

The very first unit of

THE ARMY OF THE UNITED STATES OF AMERICA

Created by a special act of

The Continental Congress

14 June 1775

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PREFACE

A quarter of a century ago, I began collecting historical materials about sniping and sharpshooting to provide anecdotes while instructing sniper students. The more information I assembled, however, the more I began collecting it out of a growing historical interest. Wherever I traveled, research became a secondary task. While overseeing the European sniping championships in the Czech Republic, for example, I toured the Austrian Military Museum in Vienna, and from Fort Benning's Army Sniper School, I took time to visit the Columbus City Museum. A Washington trip gave me an oppor-

tunity to tour the National Rifle Association's National Firearms Museum. A business trip to New York produced side visits to West Point's outstanding military museum and a chance to view ancient weapons at the Metropolitan Museum of Art.

It was the same thing for piggybacking sniping research on other projects. While assisting famed director and screenwriter John Milius (*Red Dawn*, *The Wind and the Lion*, *Apocalypse Now*, *Dirty Harry*, *Jeremiah Johnson*), I discovered a great deal about sharpshooting during the Indian wars of the Old West. While researching modern Russian snipers and tactics for my book *The Ultimate Sniper*, inevitably I came across details about their World War II counterparts.

My collection grew and grew, but still I knew there were immense holes in this story. In 1996 I began touring Revolutionary and Civil War battlefields, carrying along a laser rangefinder and very carefully studying battles from the perspective of a long-range shooter. This yielded some fascinating, fresh insights.

In 1998, I subscribed to a commercial archival service that yielded hundreds of newspaper articles from the 1750s, 1770s, and 1860s. By the year 2000, the Internet had become a worthwhile research tool. Initially I used it solely to find obscure, out-of-print books—some more than 150 years old—that offered rich perspectives. Within about two years, however, the Internet exploded into an astonishing array of databases, reprinted articles, even complete histories—thousands of which became my final component, in essence, the glue that made this book possible.

Once I started to actually write *The History of Sniping and Sharpshooting*—after years of accumulating material—it became painfully clear that conventional footnoting would require as much effort (and space) as the book itself. Therefore, the publisher and I agreed that it was best not to use footnotes. I have included a lengthy bibliography for readers who wish to know more about the

subjects discussed in this book. (For more on sources, see page 659.)

Thanks to these immense resources and my own decades of research, I've been able to assemble a thorough, focused history that would have been impossible to write even 10 years ago. It fittingly addresses well-known sharpshooters and snipers—Vasili Zaitsev, Alvin York, Carlos Hathcock—but my greatest satisfaction came from rediscovering heroic but forgotten riflemen who'd fallen into the dusty cracks of history, men like John Burns, Benjamin Forsyth, and Arthur Wermuth, to name but a few. When I told Major Jim Land, the father of post-Vietnam Marine Corps sniper training, that the first USMC sniper course at Quantico had taken place in 1918, he was as surprised as I was. So much history has been forgotten.

As well, I thought it was important to trace the evolution of firearms and optical technology, and explain how this intertwined with sniping history and how it influenced tactics, organization, and capabilities. This had never before been addressed thoroughly.

As this story clarified, I wanted readers to witness the terrible pattern I saw emerge, in which the close of each conflict saw an instant dismissal of snipers, only to have to

start from scratch for the next war, relearning lessons at a considerable cost in blood. I hope this book helps ensure that this never happens again.

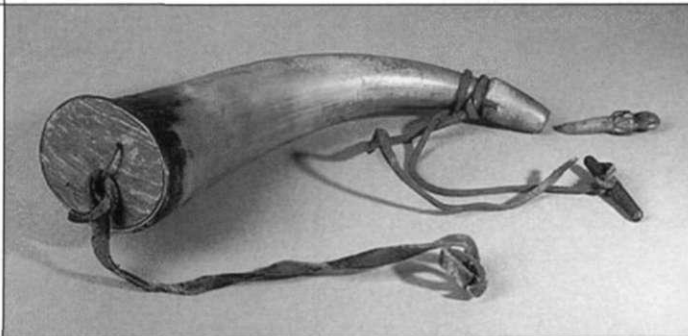
Finally, I hope this book corrects a Hollywood-inspired image of snipers as one-dimensional, stone-cold killers, when,

quite the contrary, as I have seen over the past quarter century, they are (and always have been) paragons of skill, dedication, and courage.

John L. Plaster
November 2007

PART

1 EARLY WARS IN THE NEW WORLD AND ON THE CONTINENT



THE SHARPSHOOTER'S DAWN

Prior to the 15th century, any shoulder arm—whether it fired multiple pellets or a single ball—employed a shotgun-like smooth bore. When a loose-fitting lead ball bounced down its barrel, eventually it flew in the appointed direction but could not reliably hit a man-sized target beyond about 60 yards. Inadequate though this sounds, in its day the smoothbore musket proved to be decisively deadly against close-range enemies armed with edged weapons.

Adapting tactics to exploit these smoothbores, European armies fielded masses of musket-armed infantry in multiple lines. The finest armies drilled their men to fire in volleys and reload

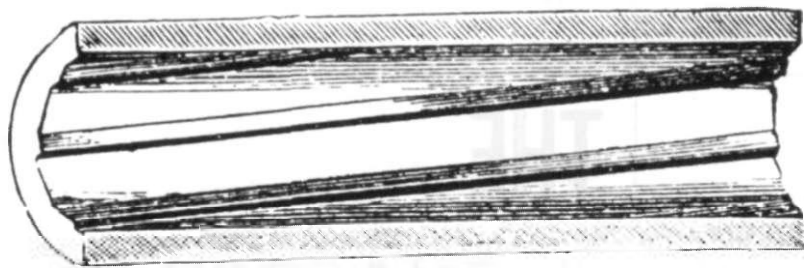
while they rotated positions, their firing rate of three to four rounds per minute multiplied by the number of lines.

Thus, three rotating lines meant a unit's front let loose one volley every eight seconds or so. Such an irresistible juggernaut overwhelmed its foes.

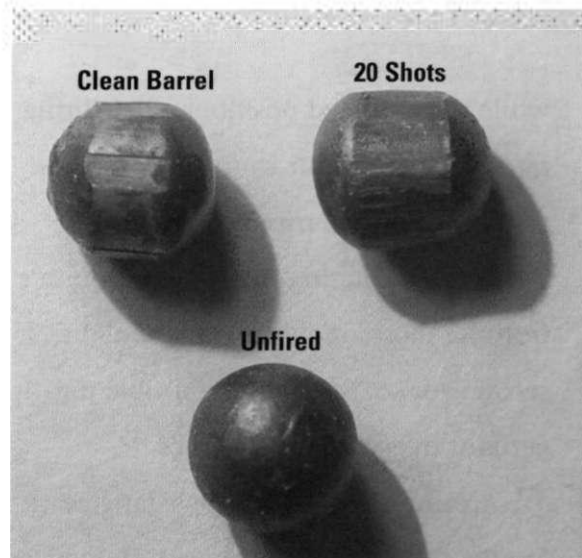
Around A.D. 1450, a new-fangled long gun appeared. Its bore contained spiral grooves that bit into a fired lead ball; instead of just bouncing along the barrel, the ball spun like a rotating football, imparting a gyro-like stabilizing spin that sent the ball flying in a consistent, repeatable arc. Unlike the smoothbore, this spiral-grooved gun offered predictability; a shooter could learn to place a shot where he intended it to go, well beyond smoothbore range. Since these grooves were cut by a process

called *rifling*, this type of weapon soon was called a *rifle*.

The earliest reference I've found for a "firearm with spiral grooved barrels" is a 1476 Italian armory inventory. By 1515, some 20 years after Columbus discovered the New World, German gunmaker August Cöter regularly produced rifles—enormous, crude



Rifling, or grooves in a barrel, imparts stabilizing spin to a projectile as it transits the bore.



A clean barrel's rifling bites crisply into a lead ball, while black powder fouling soon degrades accuracy.



The flintlock action. Note the leather-wrapped flint held in the hammer.



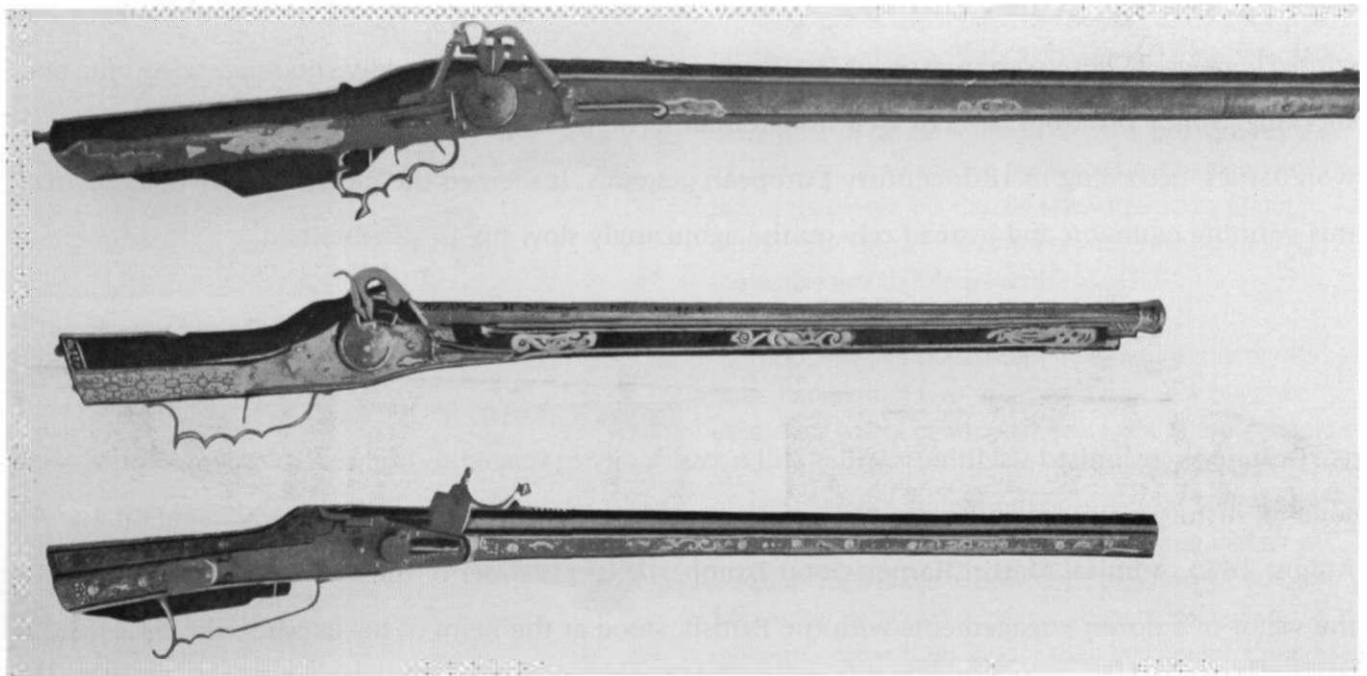
The Spanish *arquebuser* had to keep his wick lit to touch off his weapon, which was so heavy he needed a supporting monopod.



Wealthy Austrian riflemen load their wheel locks, approximately 1640.

weapons with wrought-iron barrels and buttstocks the shape and size of a baseball bat.

The refinement of practical rifles had much to do with refining their actions. One of the earliest rifle actions, the matchlock, rotated a lit match or burning wick to fire the weapon, a system that did not lend itself to precise aiming or smooth trigger release. New York's Metropolitan Museum of Art displays several wheel lock guns with rifled barrels, circa 1650, by the Cominazzo Workshop in Brescia, Italy. Also displayed are two German-made wheel lock rifles, one dated 1668, with two flip-up rear sights. Though the wheel lock action offered fairly reliable firing, its rough trigger flicked like a cigarette lighter to ignite the powder, creating terrible, mushy trigger control.



German wheel lock rifles, circa 1650, were expensive and exquisitely handmade. They were as much art as firearms.

Eventually it was the flintlock action, adopted in 1690 for the smoothbore British “Brown Bess” musket, that made possible both reliable firing and a reasonably smooth trigger release. Adapted to rifles, when the flintlock’s trigger is pulled a piece of flint in the hammer falls across rough steel serrations, showering sparks into the priming pan and touching off the weapon.

CAPABILITIES AND LIMITATIONS

Rifles were not adopted for general military issue, and with good reason: rifle-armed infantrymen would have been at a tremendous disadvantage. Reloading a snug-fitting rifled bore was a tedious process, taking about two minutes. At such a slow rate of fire, given the rifle’s typical range—perhaps 200 yards—a line of riflemen would have been bombarded by 25 volleys of smoothbore musket fire and a bayonet assault before they could load for a second shot. And the cost! A rifle required extensive hand finishing, costing three to four times the price of a smoothbore. Further, there was no means to attach a bayonet, and just as well—most rifles, especially long-barreled American guns, were too slender and delicate for bayonet fighting.

It was obvious to military leaders of the day that victories were determined not by shot placement but by reloading quickly and maintaining well-drilled discipline under fire. Of what possible military value was selective, accurate fire? *What difference did it make which opposing infantryman a rifleman selected to engage?* There were masses of fast-firing muskets to do that, rapidly shooting, reloading, and shooting. Volley fire from rows of well-drilled infantrymen firing smoothbore muskets—*that’s* what won battles, according to 18th-century European generals. It seemed the height of folly to jeopardize this winning equation and instead rely on the agonizingly slow fire of riflemen.

THE EARLIEST SHARPSHOOTERS

Despite their limited usefulness, rifles still occasionally managed to find their way into battle—and some of history’s most lucrative targets were among their first. At the naval Battle of Texel on 10 August 1653, Admiral Martin Harpertszoon Tromp, the commander of the 100-ship Dutch fleet and the victor of a dozen engagements with the British, stood at the helm of his flagship, the *Brederode*, as she neared the enemy’s flagship. Colorfully attired and in conspicuous command, Tromp offered too grand a target for a British rifleman perched high in the nearby ship’s rigging. That sharpshooter’s

The Flintlock Rifleman's Skills

Modern snipers must master a host of skills to perfect their art, but the 18th-century rifleman's weapon and shooting environment demanded even higher skill levels if he was to accomplish his mission and live to tell the tale.

Today's marksman applies follow-through when firing; that is, he continues to hold his rifle rock steady a millisecond after pulling the trigger to ensure that the shot breaks clean and exits the bore without jerking. From the time a modern marksman's trigger releases the sear to the instant the firing pin strikes the cartridge primer and the bullet exits the muzzle, mere thousandths of a second pass.



As quickly as a rifleman fired, a huge plume of smoke compromised his position.



The rifleman carried his powder in a hollow horn, usually off an ox.



Since his rifle had no bayonet, the rifle sharpshooter needed a trusty tomahawk for close combat.

The concept of follow-through originated in the flintlock era because the rifleman's ignition system took far more time, much closer to a full second. When that rifleman pulled his trigger, he heard *click! . . . ssss! . . . boom!* as his hammer fell forward, the flint showered sparks into the powder pan, and the powder flashed its flame through a tiny hole into the breech, where it ignited the powder charge and finally sent the ball flying down the barrel. All that time, the rifleman had to hold his weapon perfectly steady and on target despite the massive flash and smoke when the flint ignited his powder pan.

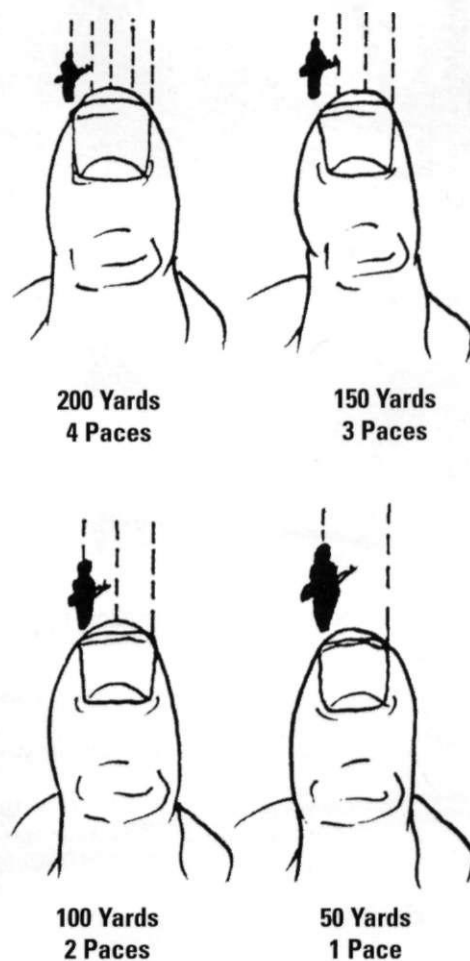
And, unlike the modern sniper, once the shot was off, the early rifleman's position was instantly detected. For no matter how carefully he'd stalked, no matter the cleverness of his camouflage or the subtlety of his firing position, the instant a black powder sharpshooter pulled his trigger, his muzzle spewed a sooty 6-foot plume that hung in the air for several seconds, telling the whole world, "Here I am!"

Spotting this conspicuous signature, his enemies had almost two minutes for a quick bayonet assault or volley of arrows before the rifleman could reload and fire. Later generations of smokeless powder snipers adopted the practice of firing once and then displacing, but this option often wasn't practical for the black powder sharpshooter, so he frequently deployed in pairs, with one reloading while the other fired. And if they still couldn't reload fast enough? Unlike a smoothbore musket, the rifle-

man's weapon lacked a bayonet, so he relied on his trusty tomahawk to take on his foes "Indian style" at close quarters. Understandably, then, the rifleman knew that reloading was as important as hitting his mark, and he learned to reload smoothly with no wasted steps while maintaining his presence of mind.

Range estimation, too, proved crucial. Since his low-velocity rifle—around 1,100 feet per second—sent slugs in a sharp arc toward his targets, his range estimate had to be exact or the slug might fly high or fall low. Some riflemen learned to gauge distances by measuring a target's width using a thumb with the arm fully extended. Holding his thumbnail so it was just below his enemy, with the target at one edge of the nail, the rifleman calculated how many paces his target required to walk the width of his thumbnail, which told him the distance in yards. If the target required one pace to cover his thumbnail's width, the marksman knew he was 50 yards away. Two paces meant 100 yards, three paces 150, and four paces 200 yards, which was the maximum distance at which most riflemen would attempt a shot.

Having calculated the range, the marksman then employed "Tennessee elevation," or hold-over, holding his muzzle above the target to hit his mark—and that skill was perfected purely by live-fire practice, as adjustable sights would not appear on American military rifles for another half century.



Using his thumbnail as a gauge, a flintlock rifleman learned to calculate distances.

well-placed shot not only struck down Holland's foremost naval leader, but also contributed mightily to the Dutch loss at Texel and, with that, a British victory in the First Anglo-Dutch War. Equally, though, Tromp's death ended any hope of restoring England's pro-Dutch Stuart monarchy. In grateful recognition, Britain's King Charles II presented his victorious admiral a New World land grant that the admiral's son, William Penn, would use to found Pennsylvania—quite a dramatic chain of events from one well-aimed shot.



Dutch Admiral Martin Harpertszoon Tromp, one of the first sharpshooter targets.

In 1709, no less momentous were the results of another sharpshooter's skills. Sweden's King Charles XII, a youthful, Alexander-like warrior-monarch, inspired his tiny army to dominate the Baltic region. After defeating Denmark, he invaded Poland, seized Saxony, and even fought Czar Peter the Great's Russia. Brave to the point of recklessness, King Charles did not attempt to conceal his presence while inspecting his front line before one of history's pivotal battles at Poltava in the Ukraine. He proved an irresistible target for a distant Russian sharpshooter, who took careful aim and nearly missed, striking his majesty in the left foot. The king's wound festered. Though feverish, 11 days later Charles attempted to command from a stretcher, but the czar's troops decisively defeated the demoralized Swedes.

Though he retained the throne in Stockholm, this was not the last meeting this monarch would have with a rifleman.

Nine years later, on 30 November 1718, while besieging the Norwegian fortress of Fredriksball, King Charles XII raised his head above a wall to observe the action when "a well-aimed shot" struck his left temple, killing him instantly. Thus one Norwegian rifleman ended forever Sweden's dominance of northern Europe. (And reminiscent of John F. Kennedy conspiracy claims 250 years later,



Early Russian sharpshooters apparently favored bipods to support their rifles.

rumors flew that the king had actually been assassinated by Swedish political enemies. Twice, in 1746 and 1859, his body was exhumed, only to determine that “the fatal shot had been fired from a distance on the king’s left, and from a higher level than that on which he stood.”)

The rifle that killed King Charles XII may well have been a German Model 1711, an early European military rifle manufactured by gunmaker Zella Mehlis, available both in full-length and carbine versions, the latter with a 22-inch barrel. It was known to have been used in the Great Northern War of 1700–1721. Later the Model 1711 was issued to Norway’s *sonnenfjellske* ski troops, one of Europe’s earliest sharpshooter units.

Where did these early sharpshooters come from? Prior to the 1750s, incidents of military sharpshooting were extremely rare because rifles were extremely rare. Few armies possessed rifles, and there were no military courses to instruct any kind of basic marksmanship, much less precision shooting. To find such expert shooters, armies had to look outside their own ranks, calling on self-taught marksmen already skilled with rifles. It could be said that *every* 18th-century rifleman, when thus called into military service, was a sharpshooter since *only* a rifleman could selectively engage targets or hit targets beyond the range of the common infantryman.

Austria and Prussia, too, fielded sharpshooters armed with hunter rifles (*Jägerstutzen*). In 1744, Prussia organized a special corps of “Field Hunters on Foot” (*Feldjäger zu Fufs*), recruited from professional Alpine hunters and noted marksmen, outfitted with long-barreled rifles and employed as light infantry. These *Feldjäger*s preceded conventional infantry formations as



Sweden’s King Charles XII was twice the target of enemy sharpshooters.



The German Model 1711 rifle may well have been used to kill Sweden’s King Charles XII.

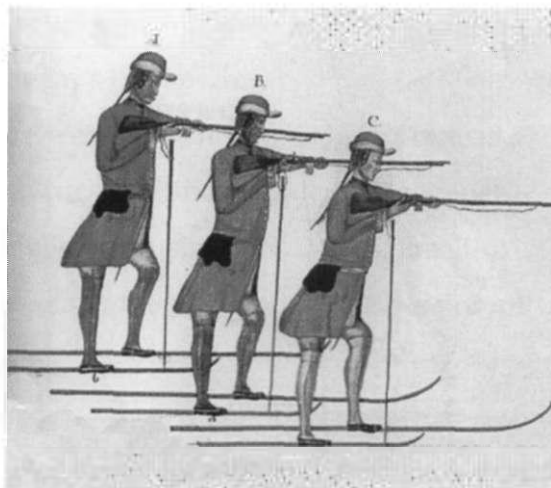
scouts and skirmishers, remaining close enough for concerted action with the main body, which also could protect them with massive firepower. The following year, Austria established a similar light infantry unit, called the Hunter Group (*Jägertruppe*), manned by professional hunters from Alpine regions.

Though these early European experiments proved interesting, they involved small units and few engagements compared to the American frontier, where dire necessity would drive sharpshooting. Here is where accurate rifles and skilled marksmen at last would come to the fore.

THE FRENCH AND INDIAN WAR

By 1750, many thousands of British colonists inhabited the coastal areas around Boston, New York, Philadelphia, Baltimore, and Charleston, but only a few thousand lived inland on wilderness farms and in small settlements. As these British settlers drifted westward, they threatened France's lucrative fur trade. For 150 years, France's Canadian colony had operated a profitable fur trade without populating its frontier, relying on white traders who lived among the Indians. The Native Americans preferred this approach because they yielded almost no territory to colonists.

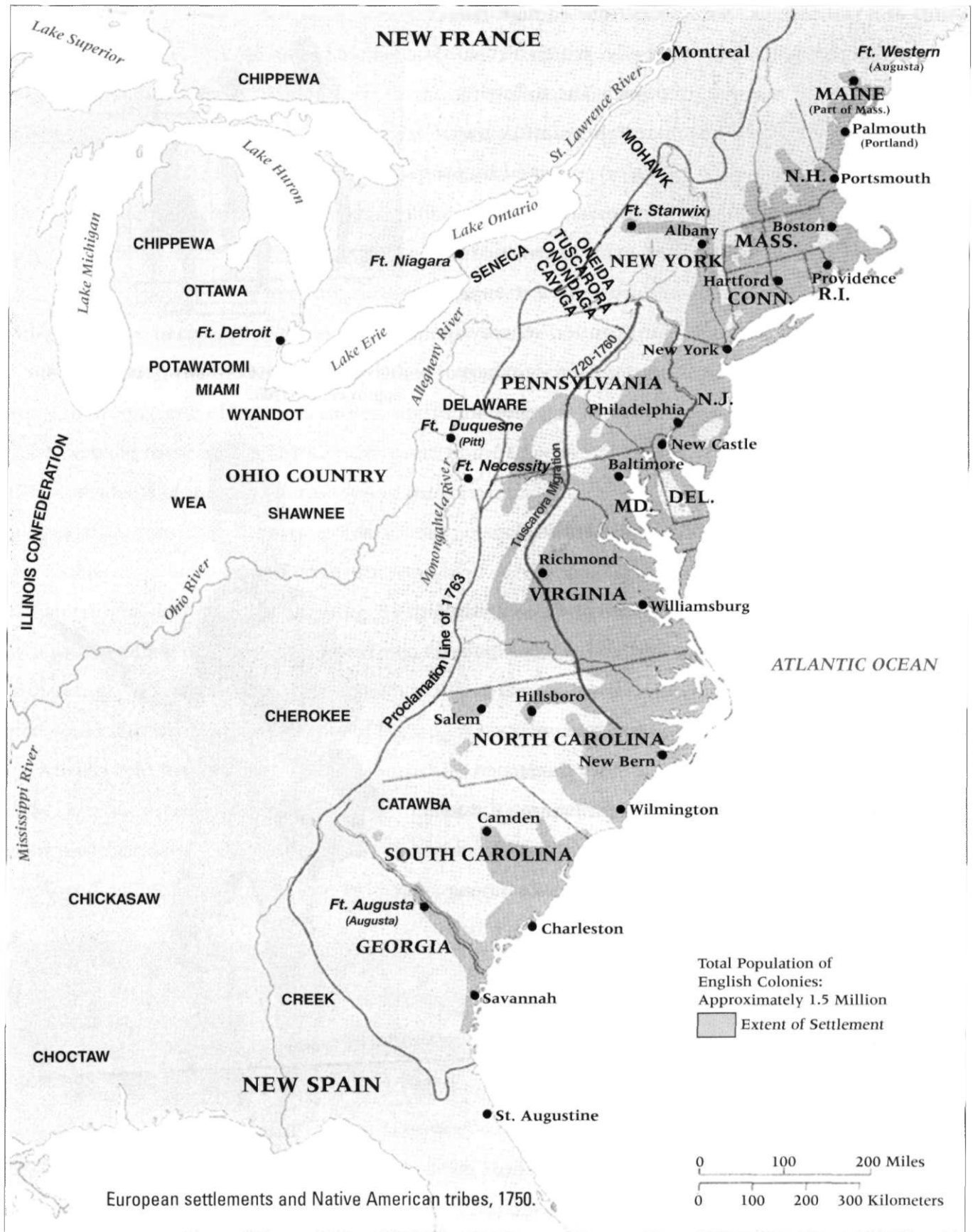
To block further British settlements, the French established an arc of wilderness forts along key rivers, deep in America's trackless interior, yet reachable by waterways from Canada. Deep in the British colony of New York, on a precipice overlooking Lake Champlain, stood France's greatest outpost, Fort Carillon (later called Fort Ticonderoga).



Norwegian ski troops stabilize rifles on ski poles, approximately 1700.



An Austrian Jäger (Hunter) rifleman.



Near present-day Buffalo, New York, they built Fort Niagara. Farther south, in western Pennsylvania at the head of the Ohio River, stood Fort Duquesne, at the site of today's Pittsburgh.

Since Britain's colonists outnumbered France's 20 to 1, Paris avoided open war, choosing instead a strategy of covert, deniable attacks using its Indian allies to push back the British settlers. The French offered sizable bounties for scalps, giving license to their Indian allies' bloodiest inclinations. Small-scale raiding began in 1750, and, for the first time in the history of warfare, the rifle would play a major role.

Bush Lopers and Terror

Like modern covert operations, France's campaign demanded deniability—most combatants would be Indians or French soldiers masquerading as Indians. Oftentimes these raiding parties were led by Canadian mercenaries called *coureur de bois* by their French paymasters and Bush Lopers by the British colonists. Descendants of French-Canadian traders who'd lived among the Indians, Bush Lopers had adopted an Indian view of the spoils of war—and that did not include mercy for prisoners.

"The Indians on the field of battle performed cruelties even the recital of which is horrible, their souls are as black as pitch," wrote Captain Louis Antoine de Bougainville, aide to France's commander in Canada, the Marquis Louis de Montcalm. "Humanity shudders at being obliged to make use of such monsters. But without them the match would be too much against us."

The French and Indians launched hundreds of small actions against isolated settlements and farms, bypassing strong forts to loot and torch undefended homesteads. The British government discerned a French hand behind the raids, but London lacked the inclination for another direct war with France. Therefore, without even a declaration of war, in 1755 British Major General Edward Braddock and a small force arrived in Maryland to march into the wilderness in pursuit of the raiders.

Braddock proudly refused to adapt to irregular warfare, insisting on using linear European tactics.



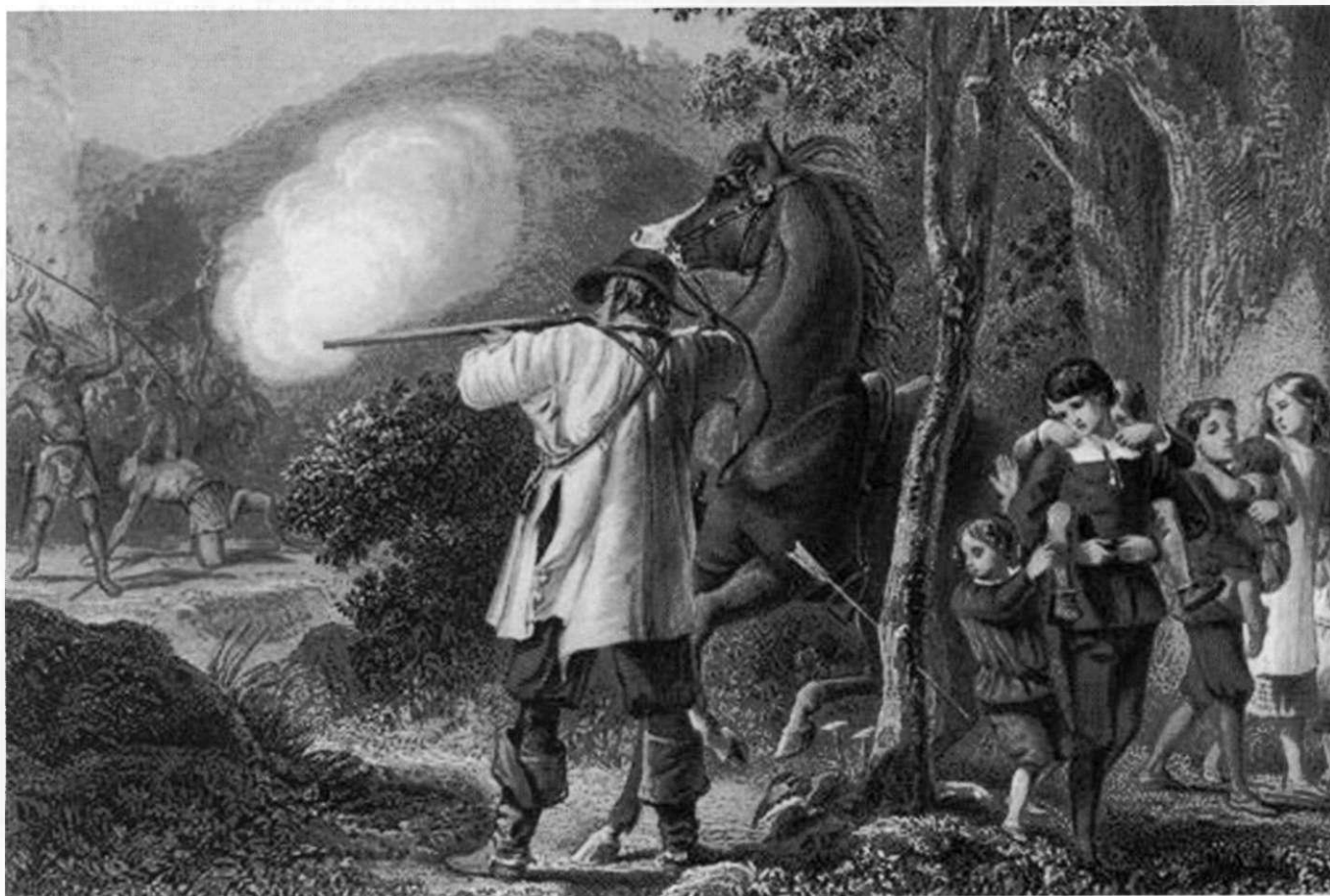
Most Indian forays into the British colonies were French led.

“Nor does he seem to realize the great value Indian allies can be to us,” observed Virginia militia Lieutenant Colonel George Washington, “seeing them only as . . . ignorant painted savages valueless to any campaign.”

“He looked upon us as dogs,” agreed friendly Indian Chief Scarroyaddy, “and would never hear anything that we said to him.”

Nor did Braddock value expert riflemen. Shortly before Braddock’s doomed expedition, a band of experienced Indian fighters led by a renowned frontiersman, “Captain Jack, the Black Rifle,” offered to scout for him. Though famed for his prowess and shooting skill—and motivated by undying revenge for the slaughter of his wife and children—Captain Jack and his riflemen were too wild looking for the proper English general.

Marching without scouts or flank guards, on 9 July 1755, Braddock’s two regiments of British regulars, accompanied by the Virginia militia battalion of 24-year-old George Washington, walked into an ambush while fording Pennsylvania’s Monongahela River. Despite two horses shot from under



A frontier family flees Indian raiders, in accord with France’s strategy to control America’s interior.

"Captain Jack, the Black Rifle"

Though multiple sources cite General Braddock's declining of the services of buckskin-garbed frontier riflemen, there's disagreement on exactly who led this band. The most colorful accounts claim it was none other than "Captain Jack, the Black Rifle," a character of such fame and achievement that historians wonder whether he really existed.

According to legend, Captain Jack, a Pennsylvanian from Huntingdon County, returned from a hunt in 1752 to find his family slaughtered by Indians and their log cabin reduced to ashes. Living off the land, from that terrible day Captain Jack stalked the forests and mountains between the Allegheny, Potomac, and Susquehanna Rivers as the guardian angel of pioneers in Maryland and Pennsylvania. Stories abounded of settlers coming upon decomposed Indian remains killed by the lone rifleman, or of midnight rifle shots near isolated cabins, explained by a voice that called from the darkness, "I have saved your lives." Was he real or a legend created to comfort terrified frontier families?

There really was an accomplished Pennsylvania rifleman and Indian fighter named Captain Jack Armstrong, but he was killed in an Indian ambush in 1744, a decade before Braddock's expedition. Another candidate—despite his name—is Captain James Patterson, a Juniata Valley settler renowned for his shooting skills as "a very dangerous man." More likely it was Captain Patrick Jack of Cumberland County, an Indian fighter who raised his own band of Rangers and by some accounts offered to accompany Braddock's force, then went on to fight the Cherokees, and later served in Washington's army during the Revolutionary War. None fit the bill exactly, causing some historians to think the legend combined these real riflemen into a single savior of the frontier.



The legend of Captain Jack reassured pioneers who lived in remote areas.

Whether myth or man, evidence of the legendary marksman exists today in Pennsylvania's Juniata River Valley, where named for this rifleman protector are Jack's Mountain, Jack's Narrows, and Jack's Spring.

him, Washington led the survivors away, including the badly wounded General Braddock, who died a few days later. With casualties exceeding 50 percent, Braddock's defeat was complete; the French lost only 16 men. Stripped naked, half the British prisoners were marked with charcoal for *cut-ta-ho-tha*—to be burned at the stake.

The terror continued. On 23 September 1755, near today's Millersburg, Pennsylvania, French and Indian raiders slaughtered 21 women and two teenaged boys, burned the settlement, and carried away 16 captives. Next was Fort Bull on New York's Mohawk River, where the raiders slipped inside disguised as a work detail and put to horrifying death all 27 defenders, along with two women. On 14 August 1756, after the defenders of Fort Oswego surrendered, screaming Indians descended on them—despite French General Montcalm's personal assurance of safe conduct—murdering and scalping more than 100 prisoners. When French-led raiders overran Fort Granville, just 60 miles west of Philadelphia, one captive, Sarah Lawton, was subjected to hours of unspeakable torture, until at last, in an act too belated to be called merciful, a French officer intervened to put a musket to her bloody head and end her agony.

But the greatest slaughter befell those who surrendered Fort William Henry on New York's Lake George. That fort was besieged by a force of 8,000 Canadian and French troops, reinforced by 6,000 Indians from 41 different tribes as far away as Hudson Bay and today's Wisconsin. Despite Montcalm's guarantee of safety, his Indian allies fell upon the disarmed prisoners, murdering and scalping dozens of men, women, and children.

Finally, England declared war. But who could fight these forest phantoms who struck without warning and then disappeared into the vastness of the American wilderness?

THE NEW BREED—RIFLEMEN AND RANGERS

As Braddock's debacle had demonstrated, conventional troops and Continental tactics stood no chance in the wilds of America in these savage times. Badly needed were men who could stalk, snipe, track, ambush, and melt into the forest—the very tactics at which the Indians and Bush Lopers excelled. And instead of firing blindly in ineffective volleys, this new breed of soldier needed to aim and hit what he aimed at. *He needed a rifle.*

Only one month after Braddock's defeat, British Lieutenant Colonel John Abbott arrived in New Hampshire to inspect volunteers training for frontier duty. Unlike British regulars, these Americans

discarded scarlet jackets for brown buckskins and rough linen hunting shirts dyed green to blend with the forest. Abbott could hardly conceal his disdain, asking an American officer, Captain Edward Billings, why his troops weren't properly in lines and firing by volley. "The whole point of our training," the American explained, "is to keep from exposing ourselves and learning to reload quickly and hit what we fire at."

The British officer snapped, "You mean to say you actually *aim* at the enemy?"

"If we don't have a good target," the American replied, "we don't shoot."

"In other words, if you saw an enemy officer, there may be 20 or more of you aiming at him?"

When the American nodded, the British officer cried, "Why, that's absolute murder!"

"No sir, Colonel, that's not murder," the American observed. "That's war."

Despite initial misgivings, senior British officers soon began to see the wisdom of fighting fire with fire and started recruiting such frontiersmen for special 60-man companies. Since they'd be employed



Frontier riflemen lure Indians into a forest ambush using decoys.

not as conventional units but range over wide expanses, they were called Rangers. So central to their skills was rifle marksmanship that the term *Ranger* implied not just wilderness expertise but a mastery of marksmanship, too.

There could have been no better choice to command these Rangers than Major Robert Rogers. A dozen years earlier, while but 14 years old, Rogers

had come upon a nightmare scene of entrails-draped trees and scattered body parts in New Hampshire's Merrimack Valley, the handiwork of a French-inspired Indian massacre. While burying remains, the lad swore to avenge these men by mastering Indian tactics. By 1755, he quite likely was the finest small-unit tactician in the British Army.

That year he organized his first 60-man Ranger company, adding two more in 1756, including one company of Mohican Indian Rangers who would be paid "5 pounds sterling . . . for any Indian or



Major Robert Rogers, founding commander of the famous unit that bore his name.

French prisoner or scalp." By the spring of 1757, there were seven Ranger companies, and though they were sometimes musket-armed for close-range fighting, it was the Rangers' long-range rifle shooting that inspired a respect that continues to this day. Far from the cobbled streets of Boston and New York, small numbers of these self-reliant marksmen roamed America's wild, virgin forests, and despite these uncivilized settings, the rifled arms they carried were the most advanced in the world.

In hundreds of minor actions stretching from the glacial lakes of New York to western Pennsylvania's virgin forests, Rogers Rangers whittled away at French and Indian forces.

Returning from a typical Ranger operation in March 1759, Lieutenant Moses Hazen and 16 men brought back six prisoners and six French scalps, and reported they had burned several enemy buildings, killed or scattered livestock, and sent more enemy fleeing into Canada.

British General Sir John Campbell found the new Rangers "a species of troops we cannot be without, now that, I may venture to say, we have no Indians, and the enemy has so great a body of them."

Not all officers shared his opinion. British Lieutenant Colonel William Haviland, the commandant at New York's Fort Edward, sent letters to his commander in chief, General James Abercrombie, belittling the Rangers for "continually practicing at shooting-at-marks to increase their marksmanship." Rogers responded by having his men shoot outside the fort walls "and made them ring with their firing," which "galled Haviland considerably."

This "wasteful" rifle practice made superb shooters of Ranger officers as well as enlisted men. Captain Moses Hazen, commander of Hazen's Ranger Company, badly wounded during an action in



Deep in America's trackless interior, Rogers Rangers stalked and fought the French and Indian raiders.

Rogers Rangers' Standing Orders

Each member of Rogers Rangers was required to memorize "Standing Orders" drawn up personally by their commander, the closest thing to a manual these self-learned bush fighters would ever see. Although it was written in 1755, I carried a copy with me to Vietnam in 1968, and these timeless tactical rules are still taught today in Special Forces and Ranger training.

1. Don't forget nothing.
2. Have your musket as clean as a whistle, hatchet scoured, six pounds powder and ball, and be ready to march at a minute's warning.
3. When you're on the march, act the way you would if you was sneaking up on a deer. See the enemy first.
4. Tell the truth about what you see and what you do. There is an army depending on us for correct information. You can lie all you please when you tell other folks about the Rangers, but don't never lie to a Ranger or an officer.
5. Don't never take a chance you don't have to.
6. When we're on the march we march single file, far enough apart so one shot can't go through two men.
7. If we strike swamps or soft ground, we spread out abreast, so it's hard to track us.
8. When we march, we keep moving 'til dark, so as to give the enemy the least possible chance at us.
9. When we camp, half the party stays awake while the other half sleeps.
10. If we take prisoners, we keep 'em separate 'til we have had time to examine them, so they can't cook up a story between 'em.
11. Don't ever march home the same way. Take a different route so you won't be ambushed.
12. No matter whether we travel in big parties or little ones, each party has to keep a scout 20 yards ahead, 20 yards on each flank and 20 yards in the rear, so the main body can't be surprised and wiped out.
13. Every night you'll be told where to meet if surrounded by a superior force.
14. Don't sit down to eat without posting sentries.
15. Don't sleep beyond dawn. Dawn's when the French and Indians attack.
16. Don't cross a river by a regular ford.
17. If somebody's trailing you, make a circle, come back on your own tracks, and ambush the folks that aim to ambush you.
18. Don't stand up when the enemy's coming against you. Kneel down, lie down, hide behind a tree.
19. Let the enemy come 'til he's almost close enough to touch. Then let him have it and jump out and finish him with your hatchet.

Though Rogers was quick to punish any Ranger who violated his orders, quite likely the greatest infractor was Rogers himself, whose judgment took leave of him on 8 August 1758. On that day, Rogers was leading a 700-man force that had spent five days fruitlessly hunting a party of French and Indians who'd ambushed a British wagon train. After days of enforced silence the need for caution seemed to evaporate. Rogers and Lieutenant John Irwin got into a friendly argument over who was the better marksman; a bet was placed. Soon shots were ringing out, accompanied by cheers.

Hardly a mile away, 450 Indians and Bush Lopers led by Captain Jacques Marin couldn't believe their good fortune. Marin's men trod silently toward the southward path Rogers' men would take. Meanwhile, Lieutenant Irwin presented the wager to Major Rogers to a hurrah from the Rangers, and their column began marching back toward Fort William Henry. Strung out along the trail, they walked into Marin's ambush. Forty-nine Rangers died, with another 100 wounded and missing. Rogers would forever curse himself, for he had taken an unnecessary chance (#5) and had marched home along an obvious return route (#11).

Canada, noticed at great distance a French officer leading a line of troops. He had another Ranger set him on the ground, hand him his rifle, and, as one witness put it, he "took long aim, fired, and brought down his man." To an amazed onlooker, the wounded Hazen quipped, "A chance shot may kill the devil." When Ranger Captain Thomas Cresap Jr. went down fighting, it was only after he'd shot dead his opposite number, Chief Seven Swan, "with a rifle . . . through the right breast, being the only part to be seen of him."

RIFLE-ARMED TROOPS SPREAD

Inspired by the Rangers' effectiveness, in 1758 British Lieutenant Colonel Thomas Gage recruited American woodsmen for his newly organized 80th Infantry Regiment, the first light infantry unit of its size in the British Army to include rifle sharpshooters as a supporting element. Though begun only as a stopgap, this integration of riflemen spread to conventional British units, with each regiment eventually assigned 10 rifle sharpshooters, a first attempt at what two centuries later would be called "designated marksmen."

Their ability to place shots did not go unappreciated. For instance, on New York's Lake George, the Nipissing tribe's second most important war leader, Chief Konnik, was standing in the prow of his canoe, shouting, waving his tomahawk, and urging his flotilla of war canoes to overtake two boats of wildly rowing British soldiers. To Chief Konnik's amazement, his breath suddenly sucked away, instantly silencing him—a sharpshooter's well-aimed shot had drilled him, center-chest. His flotilla coasted to a quiet stop, long enough for the British boats to escape.

All the rifles weren't in white men's hands. In April 1760, at South Carolina's Fort Prince George, "one of the soldiers was shot in the northeast angle of the fort, from the hills on the other side of the river." There could have been no surer proof that the Cherokees had rifles and the skilled marksmen who knew how to use them. Noted another South Carolina report, "We have reason to believe the Indians have a good many rifled barrel guns amongst them, as their bullets seem to come this way with great force." The leader of a July 1760 expedition against the Cherokees complained, "Having many rifles among them, [the Indians] did execute at a greater distance than our [musket-armed] people could."

No less a near victim of accurate Indian rifle fire was Major Rogers himself. In January 1757, when his Ranger column was ambushed by Indians, one well-aimed shot knocked the hat from his head and grazed his skull.

The French, too, respected sharpshooter skills. In 1757, theoretician Marshal Comte Maurice de Saxe noted, "A single fire from one of these irregulars perfected in his business, will in general do as much execution as 10 from any other . . ."

GENERAL HOWE, SHARPSHOOTER'S VICTIM?

While Rogers Rangers and frontier riflemen pursued Indian and French raiders deep in the wilderness, conventional British regiments launched a parallel effort to seize the forts from which the marauders launched their attacks. This campaign's first objective was the most important French base in New York, Fort Carillon on Lake Champlain, and it was quite possibly here that a sharpshooter's bullet first struck down a general officer.

Leading the assault was General George Augustus Howe, 3rd Viscount Howe, who, though subordinate to the overall commander, General James Abercrombie, in fact led the 15,000-man army. On the morning of 6 July 1758, General Howe was rushing uphill with the light infantry just below Fort Carillon when a ball smashed into his left side, piercing his heart and lungs and shattering his back-bone. It may have been a "stray" bullet—but hitting so crucial a figure at the most critical moment, at the most important place on the battlefield, and striking him with such deadly effect? No French rifleman claimed the shot, so we'll never know with certainty. Howe's death left the attack up to Abercrombie, who foolishly ordered frontal assaults into French cannon and massed muskets, ensuring a bloody failure. Eventually, though, superior British numbers captured the French frontier forts. Then it was on to Canada, where sharpshooters would play their most dramatic role in the war.

THE WAR'S MOST PORTENTOUS SHOTS

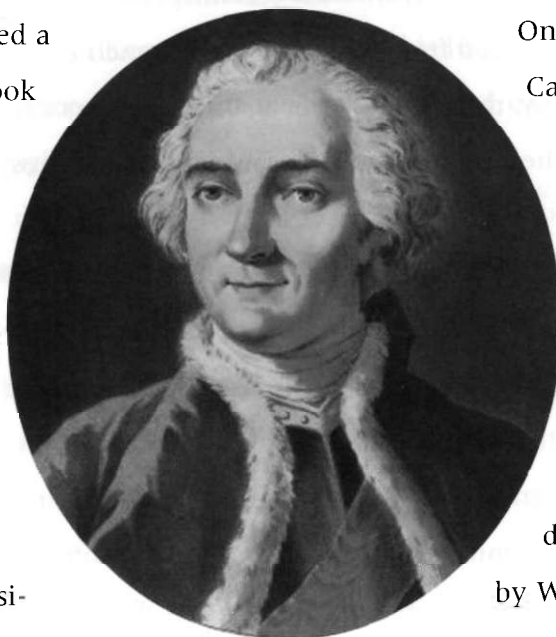
The key to defeating the French, British General James Wolfe realized, was Quebec, Canada's gateway to the Atlantic. One glance at that fortress city, looming Gibraltar-like above the St. Lawrence River, should have deterred any assaulting force. Where there weren't cliffs, thick walls with artillery positions covered every approach. Quebec could not be taken by direct assault, the French could boast.

General Wolfe agreed. Instead of directly assaulting in the darkness of 12 September 1759, he led 4,500 men in small boats past Quebec to climb a cliff and reach the city's vulnerable western approach, the Plains of Abraham. With dawn, the French discovered Wolfe's army arrayed for battle.



At his moment of victory at Quebec, General James Wolfe succumbs to a sharpshooter's bullet.

General Montcalm personally led a 4,000-man French force that took up linear positions for a set-piece battle while, from boulders and bushes along the advancing British flanks, concealed Canadians and Indians picked away at Wolfe's army. Fire was heaviest on the left, where sharpshooters occupied favorable positions and killed many British soldiers.



Within minutes of Wolfe's death, Louis-Joseph de Montcalm (above), too, was cut down by a sharpshooter.

One small band of French-Canadian sharpshooters had lain in wait more than an hour when General Wolfe appeared to lead the final assault. The riflemen saw their mark. According to one account, these riflemen included an English deserter who'd been demoted by Wolfe; sworn to revenge, the deserter waited for his former commander. A

The Kentucky Long Rifle

Though it certainly was long—typically 5 feet or more, notably longer than European rifles—the label “Kentucky Long Rifle” fails the proof-in-advertising test. This uniquely American gun was a product of not Kentucky but most often Pennsylvania, with a great many built by German immigrant gunsmiths in Lancaster County, where gunmaking was a cottage industry. This style of firearm earned its “Kentucky” title due to its popularity on the frontier, especially in the hands of explorers and hunters who carried the long-barreled guns into the wilds of what Native Americans called “Ken-Tuk.”

These elegant rifles with their thin, curly maple stocks became renowned for handcrafted quality and, importantly, accuracy. Most sported a 48-inch rifled barrel with seven lands and grooves, and an extremely slow rate of twist, usually 1:48, or one turn for the barrel’s length. Faster than this and the lead ball might separate from its greased patch, with an abrupt accuracy loss. Typical muzzle velocity was 1,000 to 1,200 feet per second.

Kentucky Long Rifles fell into three general classes, based on the diameter of their projectiles. The smallest, about 0.35 inch, was called a “squirrel gun.” Around 0.40 inch was considered a “turkey rifle.” And 0.50 inch was suitable as a “bear gun.” Although heavier rifles were preferred for combat, all were deadly when the shot was properly placed. Inherently, the Kentucky-style rifle’s longer barrel offered more precise aiming than European rifles because the front and rear sights were farther apart. Though subtle, the effect was profound, with short Hessian and British rifles incapable of being aimed anywhere near so exactly as American rifles.



A handcrafted precision weapon, the Kentucky Long Rifle was the most accurate shoulder arm of its era.

shot shattered Wolfe’s wrist; a second hit him in the stomach, yet he continued forward; then a third ball smashed into his breast, and the gallant soldier staggered to the ground. As Wolfe lay there dying, the British Army swept the field. Learning that his men were victorious, Wolfe gasped, “Now, God be praised, I will die in peace.”

The defeated Montcalm galloped toward Quebec’s St. Louis Gate, where a British marksman found his target and shot the fleeing general square in the back. He died the following day, unaware that Wolfe, too, had fallen to a sharpshooter’s rifle.

With the capture of Quebec, the French and Indian War was all but over. Four years later, Canada

became British territory. Contributing to this victory had been the rifle, which, along with precision marksmanship, had proved itself in combat; yet most British military leaders refused to change their conventional tactics, organization, or armament. Though the American frontiersmen returned to peacefully farming and clearing the land, they maintained their shooting and hunting skills. Soon, with new disputes simmering, their rifles would again come down from above their fireplaces.

THE SHARPSHOOTING REVOLUTION

British General Thomas Gage had had enough of rebellious speeches, Stamp Act protests, and tea parties. As commander of Britain's Boston garrison, on 19 April 1775 he ordered 700 soldiers to seize the colonists' arms and arrest those impertinent rabble-rousers John Hancock and Samuel Adams. However, armed militiamen—Minutemen—blocked his Redcoats at Concord; instead of snuffing liberty's flame, Gage had sparked the American Revolution.

As quickly as the Redcoats fought their way back to Boston, thousands of angry militiamen descended on the town, digging in to block its landward approaches on two narrow peninsulas.

To Gage's consternation, Boston was besieged by musket-armed rebels, accessible now only by sea.

Answering Gage's call for help, Britain dispatched Major Generals William Howe, Henry Clinton, and John Burgoyne with 6,500 troops, supported by artillery and Royal Navy men-of-war.

Correctly anticipating a British landing on the Charlestown peninsula, the American rebels dug earthworks on Breed's Hill and adjacent Bunker Hill. These militia defenders were armed almost entirely with Brown Bess smoothbores—the same inaccurate muskets that had fired the shots “heard ‘round the world” at Lexington and Concord—which offered the same ballistic inadequacies as they did 20 years

earlier in the French and Indian War. Although it fired a 1-ounce lead ball, the Brown Bess projectile offered the velocity and trajectory of a modern pellet gun: when the gun was held shoulder high and fired parallel to the ground, its ball traveled only 150 yards before hitting the earth. Thus, Colonel William Prescott's famous order—"Don't fire 'til you see the whites of their eyes!"—wasn't bravado but recognition that only by allowing British troops to advance within 40 yards did his musket-armed farmers and shopkeepers stand a chance of hitting anything. Records have shown that at Concord and Lexington, only one of 15 Minutemen, armed almost entirely with muskets, hit a Redcoat—scarcely one bullet in 300 found its mark.

Confident in the firepower of supporting Royal Navy ships, superior numbers, and the discipline of his professional troops, General Howe unwisely attacked uphill into the colonists. It took three bloody assaults, but finally the British took Breed's Hill, pushing the Americans back to their entrenchments on the narrow neck of the Charlestown Peninsula. The British had suffered 226 dead and 828 wounded, while American losses were 145 killed and 304 wounded. Both sides knew that now it was all-out war. A British fleet blockaded Boston Harbor, but the colonists still held the landward approaches. If all was not to be lost, something had to be done, and soon.

AMERICA'S FIRST CONTINENTAL ARMY UNIT

In those desperate June days of 1775, the Second Continental Congress gathered in Philadelphia and postponed appointing George Washington as Army commander to address a more pressing need: how to save the day in Boston. Several members recalled the success of Rangers and riflemen 20 years earlier. John Hancock, whose elegant signature graces the Declaration of Independence, reminded his fellow patriots that America's riflemen were "clever fellows" and "the finest marksmen in the world." Future president John Adams agreed, endorsing the need for the rifle, this "peculiar kind of musket" that hits "with great exactness to great distances."

Such sentiment swayed the entire body. Therefore, by special act of Congress, the first unit of the Continental Army would be an organization as revolutionary as the conflict itself: the world's first all-rifle battalion. Appreciating their psychological effect on the British, General Washington personally directed that these riflemen wear fringed green hunting shirts—"a dress," he wrote, "justly supposed to carry no small terror to the enemy, who think every such person a complete Marksman." This unit, Colonel William Thompson's Rifle Battalion, was authorized 12 companies of 82 marksmen each, to be

Precision Shooting a Kentucky Long Rifle

To realize his rifle's fullest accuracy, a Revolutionary War sharpshooter tweaked his weapon in a host of ways, beginning by determining its exact powder load. The best riflemen fired only extra-fine grain powder, even sifting it so the finest particles could be set aside for priming the pan. Only after extensive test-firing for accuracy did the rifleman determine his powder load. Then, to ensure he used exactly this amount, he whittled down the hollow tip of a deer's antler as a precise measuring cup and lashed it to his powder horn. Like a modern sniper testing a new ammo lot, when receiving a new powder supply the 18th-century rifleman test-fired to see if he should change the amount.

Next came zeroing. To achieve zero windage, the sharpshooter fired in a dead calm, tapping (or "drifting") his rear sight sideways until it was horizontally dead-on. He zeroed his elevation for the distance at which he expected most often to shoot, which meant anywhere from 60 yards (popular in the Appalachians) to 100 yards or more in less-forested country. Because adjustable elevation was 50 years in the future, the Revolutionary War rifleman permanently fixed his zero by filing down his front sight blade to the desired height. Some sharpshooters took it a step further, narrowing the sight blade to a knife-edge fineness for the most exact aiming.

When engaging targets beyond his zero distance, the rifleman used Tennessee elevation (or hold-over, as explained earlier), while he compensated for crosswinds or moving targets with "Kentucky windage" (hold-off). He mastered these holds through extensive practice, which gave him an eye for distance and a *feel* for his rifle—especially the trigger. Each rifle being unique, the sharpshooter explored his rifle's characteristics and then developed techniques for the finest firing. Since the rifleman carried a privately owned rifle—usually his one and only firearm—it was a weapon he'd had for years and had fired hundreds of times under all possible conditions.



Accurately firing a Kentucky Long Rifle required as much attentiveness to loading as shooting.

Rifle builders supplied a bullet mold with each new gun, allowing the rifleman to cast his own lead projectiles, which he attempted to do with consistency. However, the exigencies of war sometimes limited lead supplies or varied its quality and composition. In some cases, frontier families besieged by marauding Tories and Indians had to melt pewter candlesticks and tableware to make bullets, thus changing a slug's ballistics.

The sharpshooter fully understood the importance of consistency in loading: pouring precisely the same powder charge, greasing the patch, wrapping each bullet the same way, tapping it into the rifling,

and then ramming it into place with the same pressure. His lubricated patch—bear grease being a favorite lubricant—snuggly rode the rifling and acted as a gas check to yield higher pressure and greater bullet velocity, which also helped clean fouling from the rifled grooves. Like a modern sabot, the patch fell away in flight. Interestingly, the patched bullet was so difficult to start down the muzzle that he needed a “bullet starter,” a small plunger, just to get it into the bore. Then excess patch material was sliced off, and a ramrod pushed the patched ball until it was seated.

As in modern times, cleaning and maintenance contributed to accuracy, too. Black powder was dirty, leaving a sooty coating in the barrel, which quickly accumulated until it became difficult to ram bullets down the bore. An experienced rifleman cleaned his bore every chance he got, even between shots if possible. After each engagement he checked his flint for sharpness, and every 50 rounds or so he resharpened it to ensure that it reliably ignited his powder pan.

Softer steels of that era made for a relatively short barrel life, with declining accuracy as the rifling wore. The rifleman could extend his barrel life by having a gunsmith “redress” the rifling, using an abrasive dressing stick to sharpen the lands. This slightly widened the bore, thereafter requiring the rifleman to use a larger bullet mold.

The most adept riflemen developed their own tricks and tactics for crisis situations, such as being chased by hostile Indians or rushed by bayonet-wielding Redcoats. For quick reloading, some riflemen sewed pregreased patches on their left sleeve. To load faster, New York frontiersman Nathaniel Foster made such a habit of carrying three rifle balls between the fingers of each hand that “they had made themselves cavities in the flesh which concealed them.” Even faster was the trick of pouring powder and spitting a few buckshot—kept in a rifleman’s mouth for emergencies—down the bore and then firing at a dangerously close enemy. Such undersize projectiles were sometimes called “naked bullets,” because they fired without acquiring any rifling impression. Of course, a rifleman could also have fired with his ramrod still down the barrel, but, contrary to Hollywood movies, this may have overpressured and exploded his soft steel gun.

A very few sharpshooters mastered the trick of reloading on the run, for which Lewis Wetzel was famous. While at a full run, he’d pour powder down the bore; spit a small lead ball or buckshot into the barrel; seat it by slamming the butt of his rifle against the ground, which also trickled a few grains of powder through the flash hole into the pan; fire one-handed, sometimes point-blank, into a pursuing Indian; and then do it all over again. Such shooting lacked precision, but Wetzel lived to tell the tale.

recruited among the finest sharpshooters in rural Pennsylvania, Virginia, and Maryland. The day Thompson’s battalion was founded, 14 June 1775, also marks the founding date of the entire U.S. Army.

From the depths of America’s trackless forests, expert riflemen grabbed their fine long guns and trotted for gathering places along the coast. These were not merely superb shooters, but also adept backwoodsmen who as young boys had survived Indian raids and as teenagers stalked and hunted animals for the family cookpot. At one Virginia rendezvous, some 150 riflemen showed up, almost twice the 82 needed, requiring a shooting competition to select enlistees. With competitors taking aim

at a chalk nose 150 yards away, only those who came closest to hitting “the mark”—the best *marksmen*—were allowed to enlist. “The first forty or fifty men who shot cut the nose entirely out of the board,” one historian reports. So many marksmen qualified at another rendezvous that their company commander accepted 28 more than he was authorized.

Cognizant of these riflemen’s abilities, a British visitor wrote home, “Advise your officers who shall hereafter come out to America to settle their affairs before their departure.” Another



Volunteering to help their beleaguered comrades at Boston, 1,000 frontier riflemen streamed in, forming the U.S. Army’s first unit.

Englishman warned, “One thousand of these riflemen would cut to pieces ten thousand of your best troops,” while a London newspaper called these frontier riflemen “the most fatal widow-and-orphan makers in the world.”

Townpeople along the riflemen’s route turned out to cheer and give the passing marksmen food and drink. The entire populace of Frederick, Maryland, lined the streets to cheer one company that was “painted like Indians, armed with tomahawks and rifles, dressed in hunting shirts and moccasins.” Another rifle company demonstrated to onlookers that they could fire “19 bullets out of 20 within an inch of the head of a ten-penny nail.” Captain Michael Cresap’s Rifle Company paused at Lancaster, Pennsylvania, stripped to the waist, painted themselves, performed an Indian war dance at the courthouse square,

and then shot apples off each other’s heads at 50 paces. Such sharpshooting awed American General Charles Lee. “There is not one of these men who wish a distance less than 200 yards,” Lee enthused, “or a greater object than an orange. *Every shot is fatal!*”

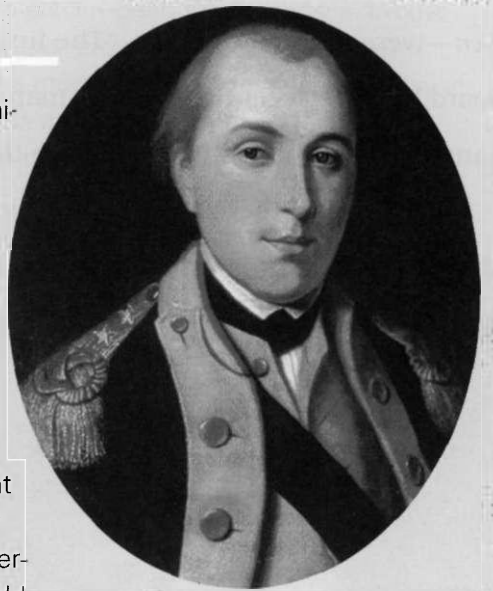
Indicative of their hard bodies and hard attitudes, the company of Virginia riflemen led by Captain

Arnold's Just Deserts

In March 1781, General Benedict Arnold, the greatest traitor in American history, stood beside his horse on the bank of Virginia's James River, surveying American positions on the opposite shore through a small telescope. After fleeing to the British, the vainglorious Arnold had accepted equal rank from his former enemies and that evening stood beside a British general, sharing assessments of the American forces.

On the opposite bank, Captain James Johnston, an American cavalry officer, was dining with the Marquis de Lafayette, who commanded the area's Continental Army. Suddenly "there was a bustle at the door," Johnston later swore in a pension affidavit, "occasioned by five riflemen in hunting shirts and moccasins who eagerly solicited permission to steal down to a point from which they were sure they could pick off these two officers."

Think of it—with two quick shots, the riflemen insisted, they could snuff the Great Traitor and a Redcoat general to boot! Lafayette, the ultimate gentleman, would allow no such thing, Johnston reported, "declaring that he would meet the enemy openly in the field but would authorize nothing like assassination." Lafayette's response "excited great dissatisfaction" among the sharpshooters, Johnston related. Not long after, Arnold rode away, unaware how close he'd come to getting his just deserts in a rifleman's sights.



Ever a gentleman, the Marquis de Lafayette found sharpshooting completely unacceptable.

Daniel Morgan fast-marched the entire 600 miles from Winchester to Boston in just 21 days—*that's 3 miles per hour, 10 hours a day, for three full weeks*. And not a single man dropped out.

In Boston, the riflemen found that the bottled-up British troops had grown lax, unconcerned about exposing themselves at distances beyond musket range. For no British army had ever faced such a long-range threat. Within days the American sharpshooters had racked up 42 enemy killed and taken 38 prisoners, making life extremely hazardous on the British lines. "We shall harass them continually," vowed one rifleman's letter. Congress was told that "riflemen picked off ten men in one day, three of whom were Field officers . . . one of them was killed at the distance of 250 yards, when only half his head was seen."

"They are now stationed on our lines," wrote a rebel soldier, "and their shots have frequently proved fatal to British officers and soldiers who exposed themselves to view, even at more than double the distance of a common musket shot." On 10 August, another colonist's diary notes, "The riflemen are continually picking off the enemy's sentries."

Gallant Marksman, Salem Poor



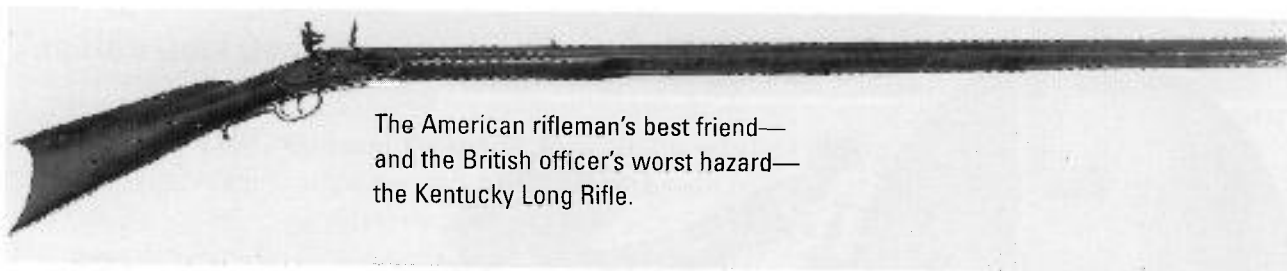
Sharpshooter Salem Poor shoots British Major John Pitcairn at the Battle of Breed's Hill.



This Bicentennial stamp honored Salem Poor.

A former slave, Salem Poor fought at Lexington and Bunker Hill as a Minuteman in Captain Benjamin Ames' company. Of the thousands of militiamen who fought around Boston, only this African-American hero was singled out for praise in a petition to Congress, signed by 14 officers, including Colonel William "Whites of Their Eyes" Prescott. Unfortunately, though commending Poor as a "Brave and Gallant soldier," their petition was scant on details, explaining, "To set forth Particulars of his conduct would be tedious." Some historians believe it was Poor's well-aimed shot that killed Lieutenant Colonel James Abercrombie, the highest-ranking British officer to fall at Breed's Hill. Others believe this marksman shot Major John Pitcairn. It's not been confirmed that Poor had a rifle, although it's unlikely a smoothbore shooter could have singled out such exacting targets. The case for his being a rifleman is supported by his later assignment to Captain John Holden's Light Infantry Company, an elite unit whose ranks included many riflemen.

Although one account says Poor was presented to George Washington, there's no record that Congress ever rewarded or recognized him. Some 200 years later, however, during America's 1976 Bicentennial, a special stamp was issued in this forgotten marksman's name, commending him as a "Gallant Soldier."



The American rifleman's best friend—
and the British officer's worst hazard—
the Kentucky Long Rifle.

The *London Chronicle* found such shooting unsporting, complaining, "Many of our brave officers [are] falling, they being singled out by these murderers." A pro-British Tory doctor added that the riflemen had "grown so terrible to the [British] regulars that nothing is to be seen over the breast-works but a hat," while an English captain confessed, "We came to dread them far more than the regular Continentals."

In addition to marksmanship, the riflemen's stealth and stalking took their toll. In one company-size night infiltration, some 80 riflemen managed to slip behind British lines, "creeping on their hands and knees." Despite being discovered, they shot their way out, bringing back two prisoners.

THE BEST OF THE BEST

Of the 1,000 sharpshooters gathered around Boston, one stood out, distinguished by his courage, his unerring aim, and his tactical acumen. Muscular and fleet-footed, standing perhaps 5 feet, 7 inches, with a taut, tanned face and piercing, intelligent eyes of uncanny vision, Timothy Murphy was the best of the best. Born to Irish immigrant parents in 1751, Murphy grew up on a wilderness farm along the Susquehanna River, near today's Sunbury, Pennsylvania. Between foraging for food and living under the constant threat of Indian raids, the young Murphy had matured into an exemplary hunter, stalker, tracker, and shooter, with a reputation as an Indian fighter.

When word reached Murphy of patriots fighting at Boston, the 24-year-old frontiersman grabbed his trademark Golcher double-barreled long rifle, recruited his longtime partner Dave Elerson, and headed off to join Captain John Lowdon's rifle com-



Timothy Murphy, America's greatest Revolutionary War sharpshooter, as depicted by reenactor Gil Dabkowski, complete with his famous two-shot rifle.

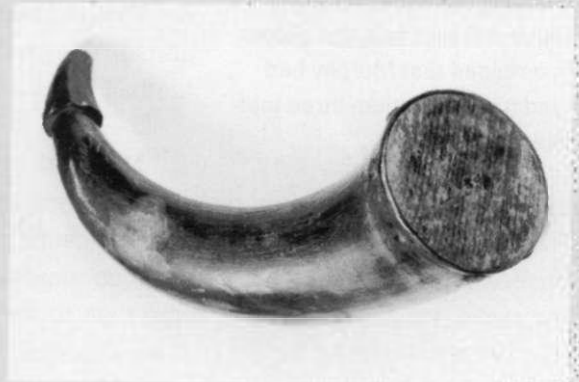
Murphy's Shooting and Murphy's Rifle

Sharpshooter Tim Murphy's Kentucky Long Rifle was crafted by the hands of famed Pennsylvania gunmaker Jacob Golcher. Unlike most of this master craftsman's superb rifles, Murphy's famous firearm was a double-barreled over-under, employing an action called a swivel breech. This unusual gun's barrels rotated, or swiveled, the top barrel in line for firing while the lower barrel held the second shot. The Golcher double-gun had two flintlock actions, one on either side of the receiver, controlled by two triggers.

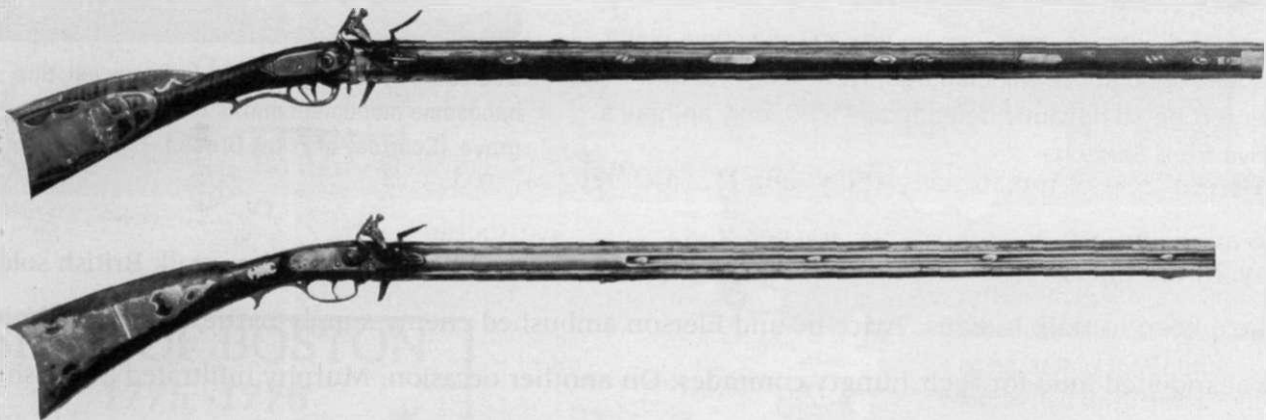
This also meant two sets of fixed sights, one for each barrel, requiring a higher level of practice and expertise than a single-barreled rifle. Though double the cost of an ordinary rifle and certainly heavier, the swivel breech offered a decisive tactical advantage: recall that a black powder sharpshooter's billowing smoke disclosed his position, inspiring Indians or Redcoats to rush him before he could reload. But in Murphy's case there was a surprise second shot up his sleeve, which saved his life a number of times, especially while fighting Indians. Indeed, after one fight in which Murphy shot two Indians and then recovered their rifles to shoot two more, some Native Americans called his Golcher "the gun that can shoot all day."

Murphy's double-barreled rifle was converted to percussion cap in the early 1800s and reportedly is owned today by a private collector in New York. The famed rifleman's powder horn is displayed at the Old Stone Fort Museum in Schoharie, New York.

Some accounts claim Murphy's shot at General Fraser was 600 yards—impossible to believe, given a rifle bullet's arcing trajectory in the 1770s. Period accounts suggest half that distance. To learn the truth, I walked the battlefield with a National Park Service curator and my state-of-the-art Bushnell laser rangefinder. Over the past two centuries trees have come and gone, but the Saratoga hills haven't changed—what was line of sight then is line of sight today.



Rifleman Murphy's powder horn is displayed at New York's Schoharie County Historical Museum.



Revolutionary War-era double-barreled (superposed) Kentucky Long Rifles, similar to Tim Murphy's rifle.



Lazing from this monument (marking the site where General Fraser fell), the author determined that Murphy had fired from more than three football fields away.

I stood beside the monument marking the spot where General Fraser fell and lazed to the facing slope from which Murphy is recorded to have taken his shot. Assuming Murphy was in a treetop poking above the hill, as suggested by history, the distance lazed at 330 yards. Examining the indicated spot, I found it marked as the very place where Morgan commanded Murphy to shoot Fraser, confirming, I'm confident, that this was indeed where the superb marksman had made his shot.

"Only" a 330-yard shot? Given the steep trajectory of that era's low-velocity, black powder rifle projectiles, and the fact that Murphy fired without benefit of an optical sight or even adjustable sights—this makes Murphy's a *fantastic* shot, ballistically comparable to firing a modern shotgun slug accurately into an 18-inch target three football fields away!

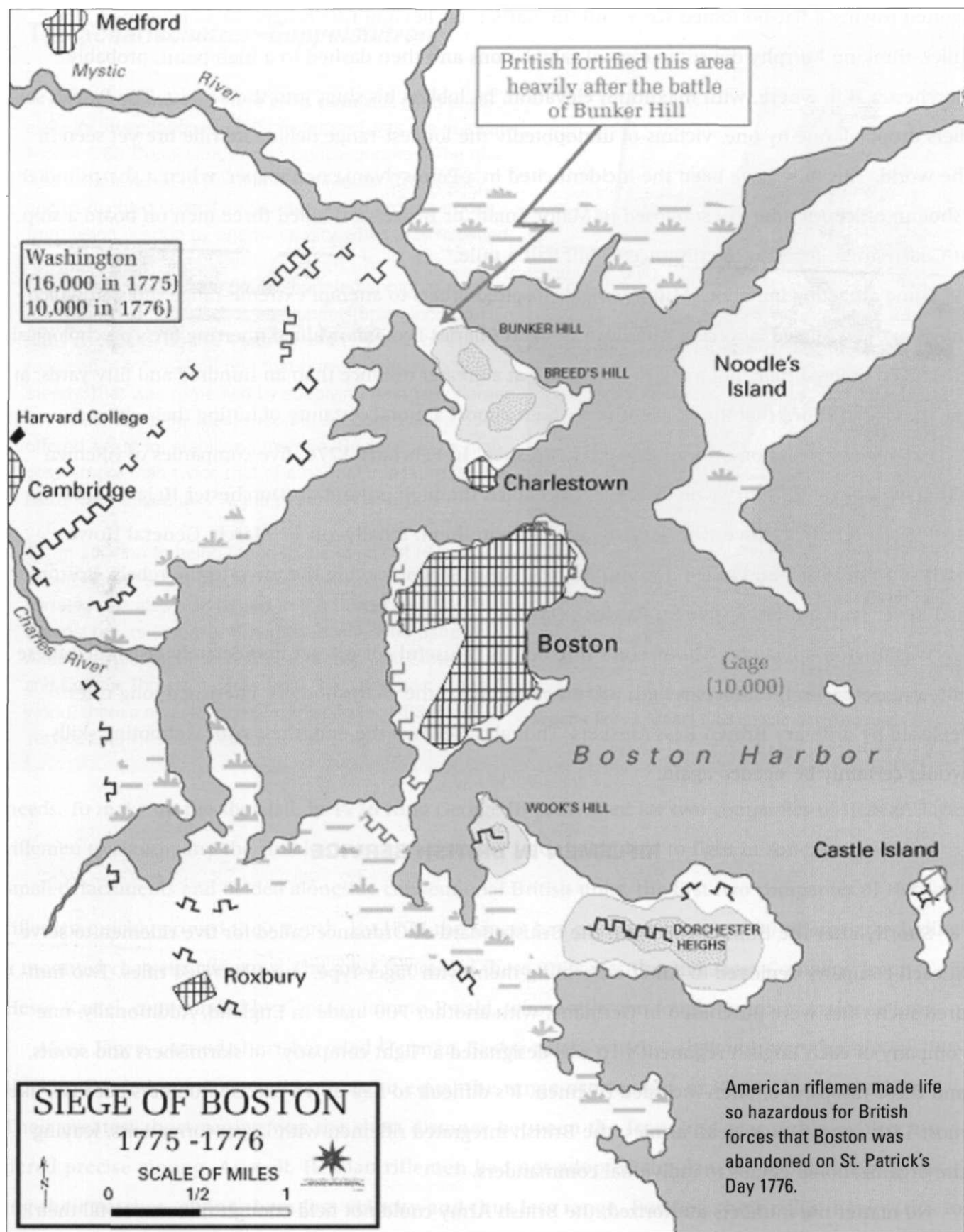
New York placed a monument to Murphy at Saratoga in 1929. Then-Governor Franklin D. Roosevelt delivered the dedication speech, observing, "Our histories should tell us more of the men in the ranks, for it was to them, more than to the generals, that we are indebted for our military victories." In this case these words are absolutely true. As the monument says, Murphy's "unerring aim turned the tide of battle by the death of the British General Fraser on 7 October 1777, thereby adding to the world's history one of its decisive battles." Murphy's grave can be visited today on a picturesque hilltop above Middleburgh, New York, site of the frontier fort he so defiantly defended in 1780, only an hour's drive from Saratoga.



Dedicated in 1929 by Franklin D. Roosevelt, this handsome monument marks Timothy Murphy's grave. (Courtesy of Frank Greco.)

pany. In the hills overlooking Boston, Murphy quickly showed himself as keen to stalk British soldiers as he'd been to stalk Indians. Twice he and Elerson ambushed enemy supply parties and brought back the abandoned food for their hungry comrades. On another occasion, Murphy infiltrated a British camp at night, captured a sleeping officer, and brought him back to American lines.

His greatest shooting demonstration came two weeks later, when a party of British soldiers was



spotted rowing a flat-bottomed scow into the harbor, far beyond rifle range—or so it seemed. The quick-thinking Murphy did some mental calculations and then dashed to a high point, probably Dorchester Hill, where, with maximum elevation, he lobbed his slugs into their midst. The British soldiers dropped, one by one, victims of undoubtedly the longest-range deliberate rifle fire yet seen in the world. This may have been the incident cited in a Pennsylvania newspaper, when a sharpshooter “shot an officer of note . . . supposed to Major Small, or Bruce, and killed three men on board a ship at Charlestown ferry, at the distance of full half a mile.”

Fame attracting imitation, Murphy's feats inspired others to attempt extreme-range shots, at which they too often missed, angering American General Charles Lee, who valued unerring fire's psychological effect. Lee ordered that “not a man . . . is to fire at a greater distance than an hundred and fifty yards, at the utmost; in short, that they never fire without almost a moral certainty of hitting their object.”

Gradually, the action around Boston diminished. In February 1776, five companies of riflemen along with General Henry Knox's artillery occupied the high ground on Dorchester Heights, and the British could hardly move without fire raining upon them. Finally, on 17 March, General Howe packed up his army and sailed away to Halifax, Nova Scotia, leaving the town to the rebels. Boston had never seen a more festive St. Patrick's Day.

Washington applauded Thompson's riflemen as “a useful corps,” yet immediately disbanded these elite companies to fill understrength infantry regiments, the sharpshooters' cherished long rifles replaced by ordinary Brown Bess muskets. Though it seemed the end, their critical shooting skills would certainly be needed again.

RIFLEMEN IN BRITISH SERVICE

Shortly after the Bunker Hill fight, the British Board of Ordnance called for five riflemen to serve in each company deployed to America, arming them with Jäger-type, short-barreled rifles. Two hundred such rifles were purchased in Germany, with another 700 made in England. Additionally, one company of each English regiment's 10 was designated a “light company” of skirmishers and scouts, and these troops, too, often included riflemen. It's difficult to nail down precise numbers because, like most 18th-century European armies, the British integrated riflemen with larger formations, leaving the organizational details to individual commanders.

No matter the numbers authorized, the British Army could not field enough riflemen to fill their

The *Scharfschutzen-Doppelstutzen*

Quite likely the first rifle ever designed especially for sharpshooters (*Scharfschutzen*) was the Austrian Model 1768 *Doppelstutzen*, or “double-shooter.” The rifle was the brainchild of Austrian Field Master Count Lacy, and its doubled capacity was intended to protect troops from being overrun by enemy cavalry while they reloaded.

Crafted much like a double-barreled shotgun, the finely finished *Scharfschutzen-Doppelstutzen* incorporates two locks, double triggers, and two sets of sights, resulting in a 12-pound rifle that proved difficult to hold steady. That was remedied by supplying Austrian riflemen with a combination spear-shooting support, whose hook offered a rest for stabilizing the rifle. Because of its high cost—more than twice that of a normal rifle—the double-barrel was issued only to the best marksmen.

In addition to being found in the hands of Hunter Group (Jäger) scout-skirmishers, the Model 1768 double-barreled rifle also was issued to the Border Sharpshooters (Grenzer *Scharfschutzen*), who patrolled Austria’s mountainous southern frontier with Slovenia and Croatia. Though it came from the same part of the world, there’s no evidence that the Model 1768 saw service as a Hessian weapon in the American Revolution.



Steadying it on his spear-support, an Austrian sharpshooter fires a Model 1768 double-barreled rifle.

needs. To make up the shortfall, in 1776 King George III contracted for two companies of Hessian Jäger riflemen to accompany the sizable German mercenary force he’d hired to fight in America. Split into small detachments and fielded alongside conventional British units, the first two companies of Hessian riflemen quickly proved their worth. By 1777 the Jägers had grown to about 1,000 riflemen, including a mounted chasseur company. The most famous of these units was the 2nd Jäger Company from Hesse-Kassel, commanded by Captain Johann Ewald, whose riflemen fought in many major actions.

Most Jägers carried short-barreled German *Buchse* rifles, which—although very handy in thickly wooded terrain—could not quite equal the range or accuracy of Kentucky Long Rifles. Their greatest shortcoming was the short distance between the front and rear sights, which hindered precise aiming. As well, Hessian riflemen had not adopted the American practice of greasing their patches, giving them less velocity and thus less range. Further, their rifles’ heavy .60- to

.75-caliber slugs meant a decidedly sharper trajectory arc, so that slight errors in range estimation might lead to complete misses.

On two documented occasions, Hessian Jägers and American riflemen directly fought each other. Continental Congressman Richard Henry Lee described the first in a 10 November 1776 letter as “a fair trial of skill between our rifle men and the Hessian Chasseurs.” According to Lee, “We fairly beat them” despite equal strength. “The Hessians had 10 or 12 killed and some made prisoners, the rest fled.” The other incident, mentioned in a letter from Congressman William Smith, reported:

“Morgan’s Corps & Abt [about] an equal number of the yagiers had a Serious dispute in View of both Armies, who both lookd on without offering to assist. Morgan prevailed. When the enemy gave way our rifle men raised the war whoop which occasioned them to fly in the greatest confusion, tis Said they left near 100 on the field.”

In addition to Hessians, the British fielded Ranger riflemen, too. In mid-1776 the renowned Robert Rogers—having sworn his loyalty to the crown—organized the Queen’s Rangers, a battalion that included eight rifle companies. Unlike 20 years earlier, however, this time most frontiersmen joined the rebels, leaving Rogers largely with Tory opportunists and urban men attracted by enlistment bonuses. In early 1777, his record marred by incidents of looting and indiscipline, Rogers quietly resigned and sailed to England. Like the Hessian riflemen they often served beside, small detachments of Queen’s



A Hessian Jäger rifleman with his short-barreled weapon on patrol in America.



Detailed views of a Hessian Jäger's rifle. Though well made, it did not equal the range or accuracy of a Kentucky Long Rifle. (Courtesy of Dennis Fulmer.)

Rangers riflemen fought in many engagements, right through the Battle of Yorktown.

BRITAIN'S GREATEST MARKSMAN

Among the English officers deployed to America stood a world-class marksman, Captain Patrick Ferguson. Not only did this accomplished rifleman's tactical thinking put him a century ahead of his military contemporaries, but his inventive genius offered England the world's first breechloaded military rifle, which could fire an astounding six aimed shots per minute.

When the handsome Scotsman demonstrated his rifle for King George III in June 1776, not only did the enthused monarch order it into production, but he authorized Ferguson to recruit his own Corps of Riflemen, to be armed with his revolutionary gun (see "Ferguson's Shot Not Taken," page 42).

After training 100 specially selected soldiers from the 6th and 14th Foot at Chatham Barracks, Ferguson and his Corps of Riflemen sailed for America. Unfortunately for the gung-ho Ferguson, the British commander in America, Sir William Howe, did not take well to having young upstarts and pet ideas thrust upon him.

Howe publicly welcomed the new unit and its peculiar weapon, but in secret he longed for the first opportunity to dispose of both.

That chance came with Ferguson's first fight, at the Battle of Brandywine. Though the British prevailed in that engagement—and Ferguson passed up the chance to shoot George

Other Riflemen of Distinction

Benjamin Whitcomb, a veteran of the French and Indian War, was a trapper and hunter in Essex County, Vermont. When he read a circular from George Washington deploring the “wanton butcheries and massacres of women and children by the British Indians” and offering a major’s commission and pay to any American who went to Canada and killed a British general in retaliation—well, Whitcomb had to go.

Alone, he trekked into Canada and crept up to a British camp near Three Rivers, Quebec, selecting a suitable hide overlooking a road. On 26 July 1776, after allowing many soldiers and a number of mounted officers to pass, Whitcomb noticed “an officer mounted on a splendid white steed, richly dressed, with a broad silk sash around his waist and a long white plume on his hat.” When the officer came within 50 rods (275 yards), Whitcomb fired, then hid deep beneath a fallen tree, fooling the British and Indians who rushed where gun smoke hung in the air.

Lying in the road, mortally wounded, was General Benjamin Gordon, one of General John Burgoyne’s division commanders, the first high-ranking British leader shot in the war. According to a British officer, the Ranger rifleman “was immediately pursued by Parties of soldiers and Indians [but] found means to escape them all.”

Congress appointed Whitcomb an officer and authorized him to raise an Independent Corps of Rangers. Whitcomb’s riflemen fought on the northern frontier and side by side with Morgan’s Kentucky Riflemen at Saratoga. Curiously, Whitcomb’s deed was denounced by some, since in addition to Gordon’s life, Whitcomb took his sword and watch as well.

Another great rifleman was Captain Samuel Brady, whose company fought under Daniel Morgan at Saratoga and then returned to the Pennsylvania frontier to protect settlers from Britain’s Indian allies. Brady fought dozens of small engagements in the wilderness of Pennsylvania and Ohio, often disguising his sharpshooters as Indians, even darkening their arms and legs with wild cherries. In March 1778, Brady and five riflemen rescued the captive wife of Benjamin Kiser on the Allegheny River, 18 miles north of Pittsburgh, firing simultaneously so “the Indians were all killed the first fire we made.” The next year Brady personally shot Chief Bald Eagle, but perhaps his greatest feat was jumping a 24-foot chasm across the Cuyahoga River to escape pursuing Wyandot Indians, a spot marked today by a plaque in downtown Kent, Ohio. Sites named for the famed frontier fighter include East Brady, Pennsylvania (50 miles north of Pittsburgh), the nearby Brady’s Bend on the Allegheny River, and the community of Brady Lake, Ohio.

Another Indian fighter, Jesse Hughes of eastern Kentucky, established a reputation for scouting and shooting, and fought in many skirmishes. In 1778, he crept at night from a besieged fort, slipped through surrounding Indians, and guided back a relief force in the nick of time. Unlike Brady, who regarded only hostile Indians as enemies, Hughes lived to hunt and kill them; he was “so confirmed an Indian hater,” wrote historian Reuben Gold Thwaites, “that no tribesmen, however peaceful his record, was safe in his presence.”

Tom Quick, another frontier rifleman, similarly was consumed by a blinding hatred of Native Americans. His father had been killed and scalped during the French and Indian War. Though Quick was a man of courage and a skilled marksman, his record was marred by unnecessary and vicious killings. (One is



A green-shirted Pennsylvania rifleman (rear) reloads while a Morgan's Rifleman in salt-and-pepper-linen shirt fires.

August 1780 Battle of Musgrove's Mill, South Carolina. William Smith is credited with the shot that struck down British Lieutenant Colonel Alexander Innes, whose fall inspired the Americans to victoriously assault the Brits and Tories. Another Watauga Rifleman, Thomas Gillespie, espied an enemy soldier taking position in a tree, "and the next moment he was biting the dust." Rifleman Robert Beene wounded British Major Patrick Ferguson in the same action. When a fleeing Tory displayed "his buttock in derision to the Americans," Rifleman Golding Tinsley "took prompt aim, and fired—and sure enough, *turned him over*," according to a period account. Some 63 British and Tory soldiers were killed at Musgrove's Mill, with another 90 wounded and 70 taken prisoner. Only four Watauga Riflemen were killed and nine wounded—a phenomenal record.

reminded that those were savage times, which could inspire the basest instincts in human beings.)

By contrast, another Kentuckian, Simon Kenton, a friend and companion of Daniel Boone, fought extensively on the frontier but remained a respected veteran. In addition to several Revolutionary War campaigns, the Kentucky rifleman fought with Anthony Wayne in the 1794 Battle of Fallen Timbers and, despite his age, even fought at the Battle of the Thames during the War of 1812.

In the South, one of the greatest riflemen was South Carolina's Josiah Culbertson, selected by Colonel Issac Shelby to lead a handful of sharpshooters at the Battle of Kings Mountain to eliminate a crucial Tory position. Culbertson stalked to high ground and shot a Tory captain "in the head," causing his subordinates to give up the fight and flee. On another occasion, Culbertson tracked down a notorious Tory plunderer, Captain Samuel Brown, and shot him dead "at a distance of about two hundred yards."

Several "Watauga Riflemen," from northeast Tennessee's Watauga River valley, distinguished themselves at the 18

Ferguson's Shot Not Taken

Captain Patrick Ferguson's chance to prove himself and his rifle came at the September 1777 Battle of Brandywine, where he very nearly turned the course of history. Seriously wounded there by a slug that nearly cost him his right arm, the recuperating Ferguson wrote a Scottish cousin with an astonishing story:

"We had not lain long [near Chad's Ford] when a rebel officer, remarkable by a Hussar dress, passed towards our army, within 100 yards of my right flank, not perceiving us. He was followed by another, dressed in dark green or blue, mounted on a bay horse, with a remarkable large cocked hat. I ordered three good shots to steal near to them and fire at them; but the idea disgusted me. I recalled the order. . . . I could have lodged a half-dozen balls in or about him before he was out of my reach . . . but I was not pleasant to fire at the back of an unoffending individual who was acquitting himself very coolly of his duty; so I let him alone."

Later, lying among wounded officers awaiting surgery, Ferguson learned from "wounded rebel officers . . . that General Washington was all the morning with the light troops, and only attended by a French officer in Hussar dress, he himself dressed and mounted in every point as above described."

As modern historians are wont to do, there's been considerable skepticism about Ferguson's claim that he had George Washington in his rifle sights. Some question his veracity—indeed, no "French officer in Hussar dress" was among American forces—while others challenge Ferguson's notion that Washington would have been roaming about without a proper escort.

Recent evidence, however, suggests that Ferguson was entirely correct.

Captain Ferguson and his riflemen were screening on the British right, forward of Prussian Lieutenant General Wilhelm Knyphausen's division, toward Chad's Ford, less than two miles from Washington's headquarters. This was exactly where Washington mistakenly believed the British would mount their primary attack, but, exasperatingly, he kept receiving contradictory reports that seemed to change every hour. To find the truth, historian and Yale librarian Bernard Knollenberg reports, Washington personally went out "reconnoitering" much of the day, confirmed by a letter from Washington's aide, Major Robert Harrison, to John Hancock.

And what of the "French Hussar?"



General George Washington on a personal reconnaissance of British positions.

While no French cavalrymen had yet arrived in America, there was a *Polish* cavalryman at Brandywine, Count Casimir Pulaski, who, in the European fashion of the day, preferred the dashing attire of a French Hussar. As commander of Washington's bodyguard, who better than Pulaski to escort the commanding general?

Given the jealousies and rivalries among lesser American officers, and Washington's ability to hold together his army through the darkest days, had Ferguson shot the "unoffending individual . . . with a remarkable large cocked hat," it could well have undone the revolution.

But that would not have happened. True to the gentleman's code, Ferguson finished his story, "I am not sorry that I did not know at the time who it was."

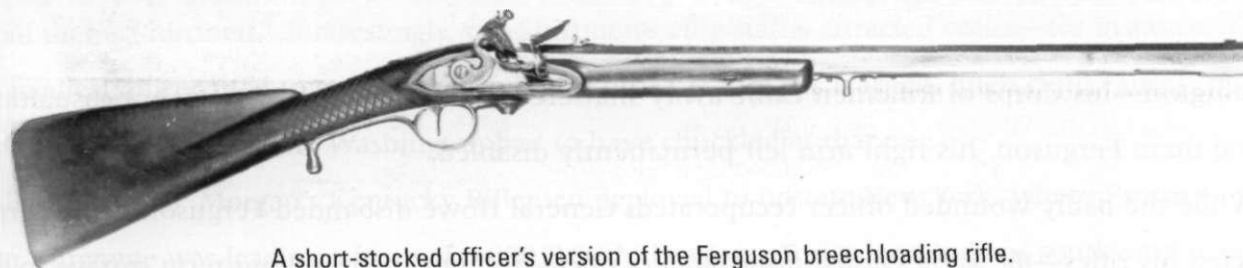
The Ferguson Rifle

The product of an extraordinary marksman's inventive mind, the Ferguson Rifle was 75 years ahead of its time. The world's first breechloading combat rifle, Patrick Ferguson's design offered dramatic advances: while ordinary riflemen aspired to get off one shot every two minutes, and smoothbore-armed infantrymen might fire five inaccurate shots per minute, Ferguson's breechloader could fire six aimed shots a minute and four while moving, which he demonstrated in June 1776 at Woolwich, England. It could even be loaded while prone.

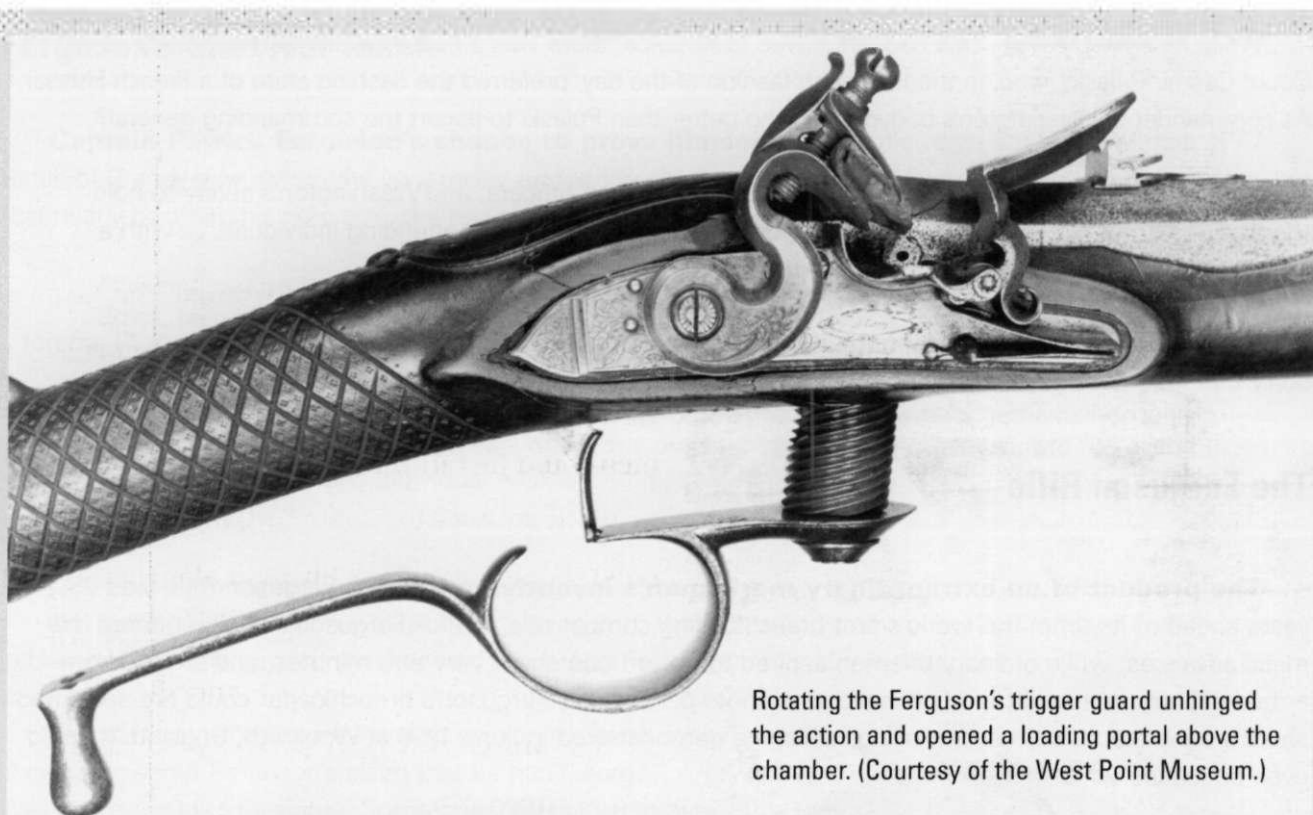
For heft and dimensions, it was a fairly conventional weapon, incorporating a 34 1/4-inch barrel with a rifling twist of 1:56 and overall length of 50 inches. The infantryman's version weighed 6.9 pounds, with the octagon-barreled officer's version slightly heavier.

One turn of the oversized Ferguson trigger guard lowered the breech screw enough to expose a hole above the chamber, allowing a .65-caliber ball to be dropped in and roll forward to fit snug against the back of the rifling. Next, the shooter poured powder—72 grains automatically dictated by the chamber size—rotated the trigger guard to close the chamber, knocked aside excess powder to the flash pan, and he was ready to shoot. It was nearly as fast as reading the last sentence.

The Ferguson even incorporated a three-bladed rear sight, allowing the shooter to select elevation for three distances, a leap forward in an era when America's riflemen used Tennessee elevation. And unlike American or Hessian rifles, the Ferguson came with a 25-inch bayonet. →



A short-stocked officer's version of the Ferguson breechloading rifle.



Rotating the Ferguson's trigger guard unhinged the action and opened a loading portal above the chamber. (Courtesy of the West Point Museum.)

The Ferguson Rifle seemed to have it all, yet the British Army acquired only about 200 and hardly gave them a minimal field trial. Why? Beyond institutional resistance, the Ferguson design contained several flaws, the first a shortcoming common to all black powder rifles: after six to 10 rounds, the action became inoperably gummed-up from powder residue. The fatal flaw, however, was how the ball rested against the rifling. When custom gun builder Matthew Switlik built an exact Ferguson reproduction in the 1970s, he found that gunpowder dribbled past the ball while carrying the rifle. In a scant four hours afield, half the powder charge had trickled out the muzzle. These flaws may well have been remedied had the brilliant Ferguson survived the war to address them, but, like his rifle, he met his fate on the soil of America.

In 1941 the National Park Service test-fired its only Ferguson Rifle, yielding a 25-yard, five-shot group that measured 3 7/8 inches. The best 50-yard, five-shot group fired by Switlik in 1971 using his reproduction gun had a 3 1/2-inch spread. Thus, to place rounds inside a torso-size target, it appears that the Ferguson reached maximum range at about 200 yards, a distance at which Kentucky Long Rifle shooters confidently claimed they could hit head-size targets.

Washington—his Corps of Riflemen came away shattered, with more than 50 percent casualties, among them Ferguson, his right arm left permanently disabled.

While the badly wounded officer recuperated, General Howe disbanded Ferguson's rifle corps, collected his rifles—*the world's fastest-firing military rifles*—and put them in long-term storage in Nova Scotia. Even as Ferguson's riflemen disbanded, however, like the mythical phoenix, their



Britain's greatest marksman, Captain (later Major) Patrick Ferguson, also invented the breechloading rifle.

American counterparts were rising anew from the ashes of the past.

MORGAN'S KENTUCKY RIFLEMEN

By mid-1777, George Washington at last had enough musket-armed infantry regiments to afford the luxury of a separate regiment of riflemen—and just in time, for the British were massing an invasion force in Canada that threatened to cut away New England along the Hudson River Valley. To man this new sharpshooter unit, Washington demanded “none but such as are known to be perfectly skilled in the use of these guns.”

Of course, this new force included America's greatest marksman, Timothy Murphy, among its 500 volunteers, the finest riflemen in the Continental Army. To command them, Washington

chose Daniel Morgan, a cousin of Daniel Boone who had been with Washington at Braddock's defeat in the French and Indian War. Morgan had gone on to fight in John Ashby's company of Virginia Rangers and then two decades later had commanded a rifle company at the Boston siege.

Though they were officially designated the 1st Continental Regiment, their unique armament inspired the nickname “Morgan's Kentucky Riflemen.” As well, just as U.S. Army Special Forces later were dubbed “Green Berets,” the riflemen's distinctive salt-and-pepper linen shirts inspired civilians to call them “Shirtmen.” Interestingly, the Shirtmen's elite status attracted critics—for instance, a jealous medical officer tried to outlaw their unique shirts because, he warned, linen cloth causes “putrid miasmata.” Even the sedate Washington had to have chuckled at that one.

Early that fall, Morgan's Kentucky Riflemen deployed to upstate New York, where British General John Burgoyne was leading a force of 6,000 British, Hessians, Tories, and Indians southward from Canada along the Hudson River. Here Morgan's riflemen would become the stuff of legends.

Riflemen at a Disadvantage

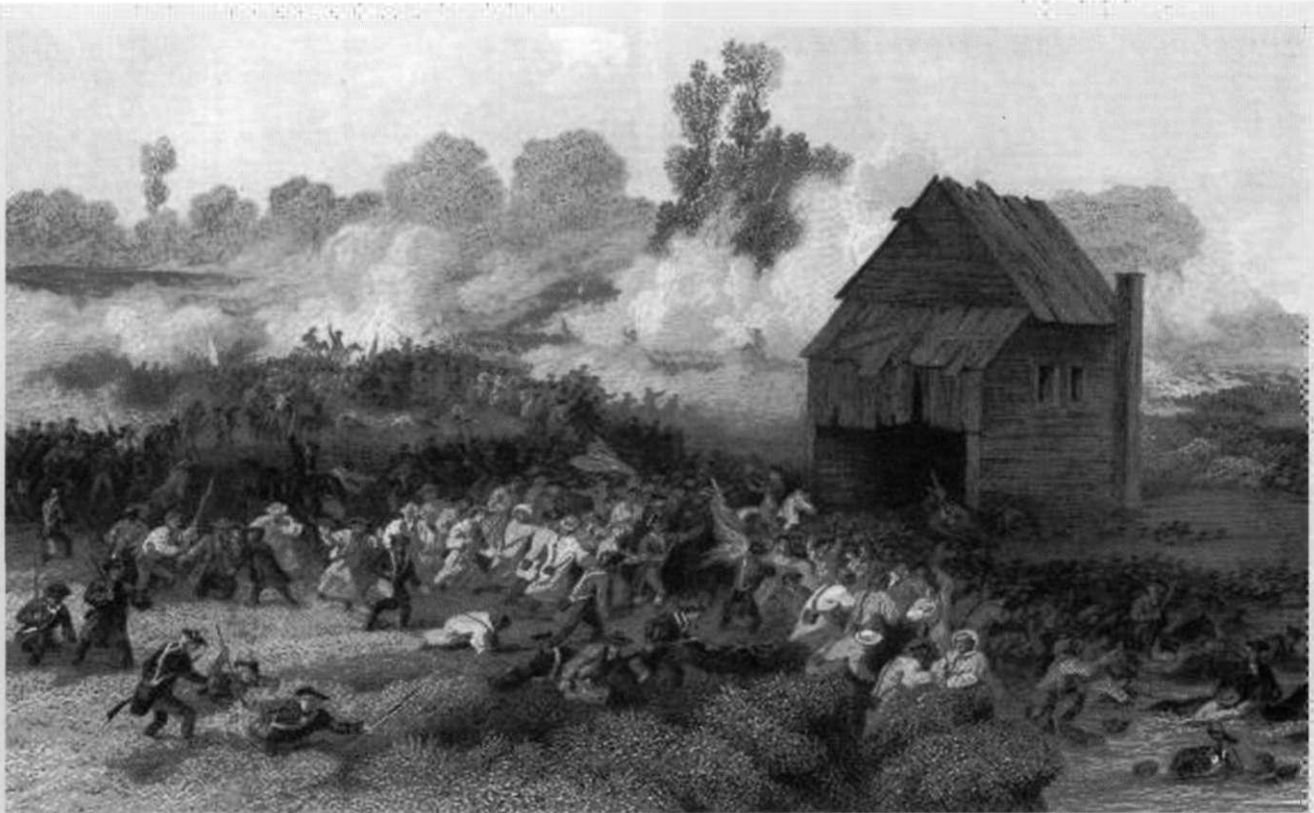
On suitable defensive terrain, the British found it all but impossible to dislodge American riflemen. In 1775 at Great Bridge, Virginia, American sharpshooters supporting conventional troops killed and wounded 60 British soldiers while losing only one man. Two months later at Moore's Creek Bridge, North Carolina—again firing over a water barrier—American Kentucky Long Rifles dropped 70 Redcoats and Tories with but two friendly casualties.

However, when riflemen fought on unsuitable terrain or apart from conventional infantry, their losses could be devastating. Two months after their Saratoga victory, 27 of Morgan's Riflemen were killed at Whitemarsh, Pennsylvania. "The moment [the riflemen] appeared," a British witness reported, "[Howe] ordered his troops to charge them with the bayonet; not one man out of four had time to fire, and those that did had no time given them to load again; the light infantry not only dispersed them instantly but drove them for miles over the country."

One British officer advised, "About twilight is found the best season for hunting the rebels in the woods, at which time their rifles are of very little use." Another noted, "Riflemen as riflemen only, are a very feeble foe," since they lacked the rapid fire of musket-armed infantry. And what happens to riflemen caught while



Bayonet-wielding British troops overrun reloading riflemen and mortally wound Major General Johann De Kalb at Camden, South Carolina.



At the Battle of Long Island, riflemen could not pause long enough to reload, virtually running for their lives.

reloading? "It frequently happens that they find themselves run through the body by the push of a bayonet," a British officer observed, "as a rifleman is not entitled to any quarter."

At the Battle of Long Island, wrote Hessian Colonel Heinrich von Heeringen, "the greater part of their riflemen were pierced to trees with bayonets." Hardly an exaggeration, for one rifleman survivor reported, "The damned savage Hessians and English light infantry ran their bayonets through [Rifleman Spiess] and two of Capt. Albright's men, who also were badly wounded and murdered by them." After a rifleman killed British Lieutenant Colonel James Grant and another officer in the same battle, he was riddled by a volley; afterward, as an example, the British victors would not allow him to be buried. One account notes, "His remains were exposed on the ground till the flesh was rotted and torn off his bones by the fowls of the air."

Disadvantages came not always from terrain or rate of fire. The rifle's snug-fitting bore was sensitive to black powder residue. During the protracted British attack on Fort Mifflin, "the rifles of the Americans became fouled by the frequent and long continued discharges," one account notes. "Man after man found he could not drive home a bullet in the clogged barrel of his gun." The Americans had no choice but to retreat.

Maneuver and mobility, too, could work against riflemen. At the August 1778 Battle of the Clouds, British cavalry and light infantry supported by Hessian Jägers killed so many Stockbridge Indian sharpshooters—including veterans of Rogers Rangers—that it's also called the Clouds Massacre. Afterward there were not enough Stockbridge warriors left to maintain their unit.



Colonel Daniel Morgan attired as the commander of the 1st Continental Regiment, better known as Morgan's Kentucky Riflemen.



Morgan's Kentucky Riflemen, these from Maryland, in winter dress.

Spearheading Burgoyne's invaders were Indian scouts and a special 100-man sharpshooter unit. Captain Alexander Fraser's newly organized Company of Select Marksmen, armed with rifles, were chosen "for their strength, ability, and being expert at the firing of ball," with the mission to "act on the flanks of the advance brigade and reinforce by what number of Indians the General may think fit to employ."

"A Corps of this kind well commanded," Burgoyne hoped, "would fatigue the enemy exceedingly by constant alarm." Unfortunately for the British, these spearheaders more than met their match in Morgan's riflemen. At every turn, from every hillock, concealed frontiersmen plinked away, whittling down the Indians, Fraser's riflemen, and Tory guides by ones and twos, sweeping away the invading army's eyes and ears. As a result, one of Burgoyne's officers found "exceed-

ingly mortifying . . . the desertion of the Indians, Canadians, and Provincials, at a time when their services were most required."

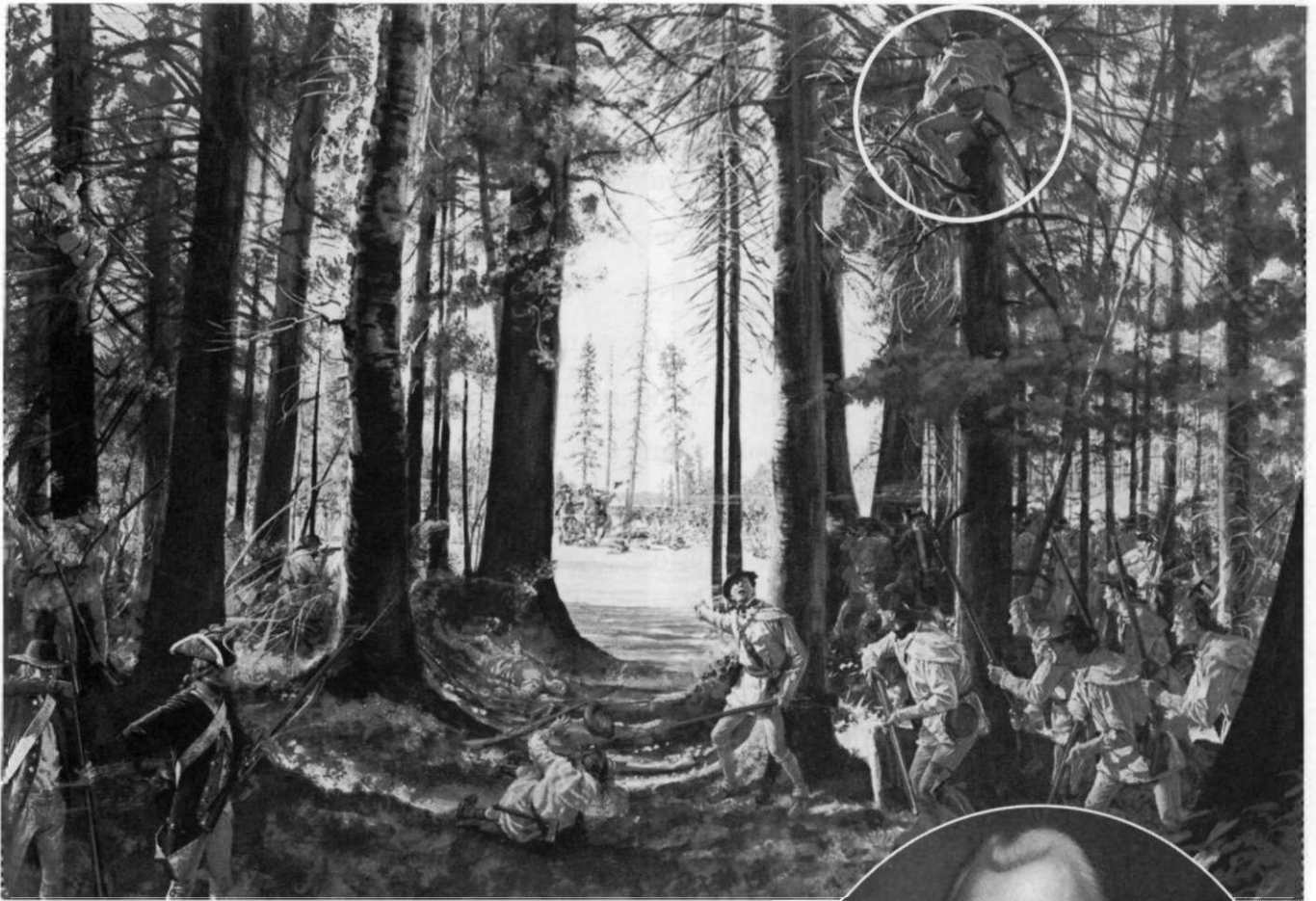
Deprived of scouts, Burgoyne's officer corps became the next target for Morgan's men, who glided through the shadows and signaled each other by mimicking turkeys. Watching for the officers' epaulets and powdered wigs, hidden marksmen took careful aim at the brass gorget plates that adorned officers' breasts. As Burgoyne later wrote, "The enemy had with their army great numbers of marksmen, armed with rifle-barrel pieces; these, during an engagement, hovered upon the flanks in small detachments, and were very expert in securing themselves and in shifting their ground . . . there was seldom a minute's interval of smoke in any part of our line without officers being taken off by a single shot."

Then, on 19 September, for the first time in history, a unit solely of riflemen fought a pitched battle against musket-armed European infantry at Bemis Heights, just north of Saratoga, New York. On favorable terrain, Morgan's Kentucky Riflemen so soundly defeated Burgoyne's 62nd Regiment that by the end of the day the British could muster just one company for duty. Of 48 artillerymen in one battery, Morgan's riflemen killed or wounded all but 12. A British officer wrote, "The only shelter afforded to the troops was from those angles which faced the enemy as the others were so exposed that we had several men killed and wounded by the riflemen, who were posted in trees." So great was the effect that Burgoyne sought to reassure his soldiers, saying, "Men of half [your] bodily strength and even cowards may be your match in firing; but the onset of bayonets in the hands of the valiant is irresistible."

MURPHY'S GREATEST SHOT

Despite such losses, Burgoyne's army continued southward along the Hudson Valley until confronted by General Horatio Gates' army at Saratoga, where both sides arrayed for battle on 7 October 1777. Burgoyne assigned his right flank to his most trusted subordinate, Brigadier General Simon Fraser and some 2,000 troops—a third of his entire army. As fate would have it, directly opposite Fraser, hidden along a tree-covered hillside, waited all 500 of Morgan's Kentucky Riflemen.

Watching wide lines of British soldiers advance across an open field, Colonel Morgan waved over the legendary Timothy Murphy. Pointing to where General Fraser rode a handsome gray mare behind his Redcoats urging them onward, Morgan instructed, "I admire him, but it is necessary that he should die—do your duty!" Murphy eyed a stout tree and began climbing while two other riflemen



Above: Perched in a tree (upper right), Timothy Murphy is ordered by Colonel Morgan to shoot General Fraser at Saratoga, on 7 October 1777.

Right: Brigadier General Simon Fraser, commander of Burgoyne's critical right flank at the Battle of Saratoga.



fired but missed Fraser. An aide rushed to the general and warned him of the danger. Then, settled comfortably up his tree, Murphy held his front sight ever so carefully on the handsomely uniformed horseman, raised his muzzle to compensate for the considerable distance, and squeezed. A flash, a plume of smoke—and General Fraser collapsed, hit center-chest.

Fraser's senior aide, Sir Francis Clarke, galloped to his fallen leader. Sir Francis should, more advisedly, have taken cover, for Murphy then let loose the second barrel of his unusual two-shot rifle. Sir Francis tumbled from his horse, as well.

Then the entire British 24th Regiment fired two ineffective volleys, Morgan's riflemen more accurately returned the salute, and panic spread among the leaderless Redcoats. Burgoyne rushed over to take personal command, but it was too late—the Redcoats abandoned the fight, hemorrhaging the British right flank and forcing their army into an uninspired defense. A few days later, Burgoyne surrendered his sword and his army.

The American rebels had captured an entire British field army!

Internationally the effect was electric. In Paris, Benjamin Franklin literally danced at the news and at last was received by King Louis XVI, who agreed to join the American side. Writing of Murphy's fateful shot at Saratoga, a prominent historian observed, "Few individual feats of marksmanship in any war have been so important."

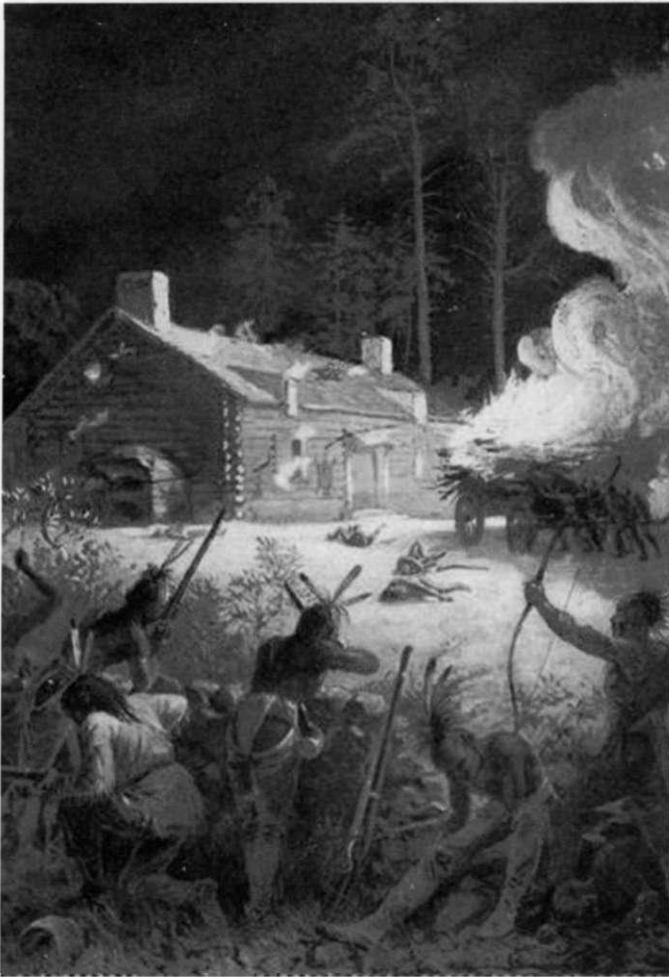
MURPHY ON THE FRONTIER

After Saratoga, the Continental Army split Morgan's Shirtmen into independent rifle companies and detachments that fought all across the north, especially defending remote settlements from British-inspired Indian raids. Reminiscent of the French and Indian War, the British-appointed Governor of Canada, La Corne St. Luc, had insisted, "We must let loose the savages upon the frontier . . . to inspire terror and to make [the Americans] submit."

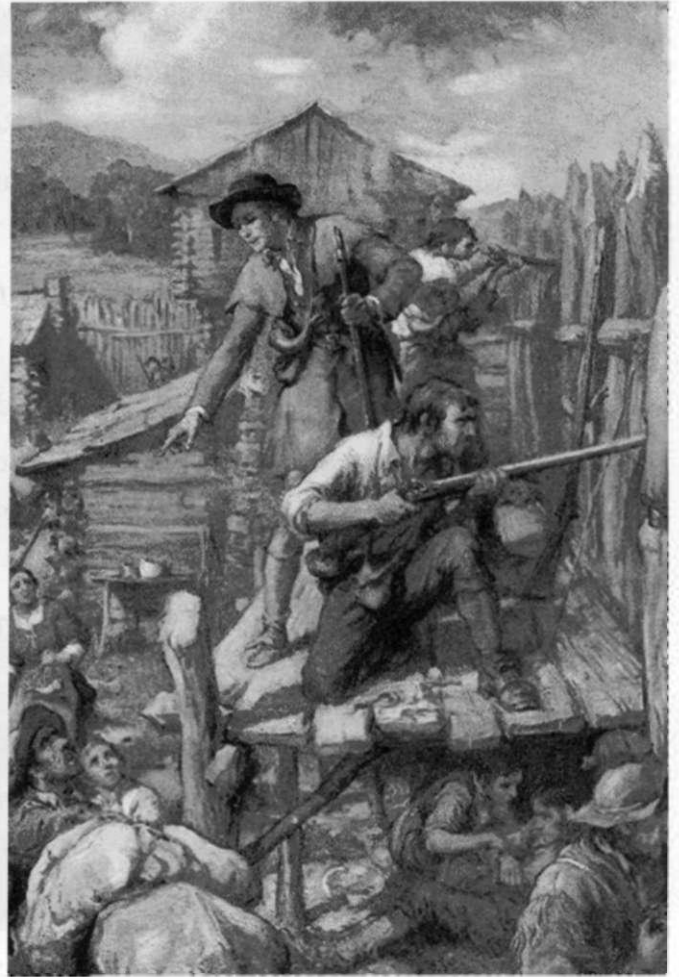
The great Mohawk chief, Brant, was recruited to lead braves from the Six Nations against the colonists, while Tory leaders John Butler and Simon Girty organized bands of Tories who disguised themselves as Indians. But for some friendly Oneidas and Stockbridges, few Native Americans sided with the colonists. In July 1778, Butler's Indians and Tories massacred 227 men, women, and children in Pennsylvania's Wyoming Valley. Four months later, Brant and Butler jointly attacked the Cherry Valley in upstate New York, killed all 16 defenders, and then stood by as their Indian allies tortured and murdered 32 captives, mostly women and children.

To oppose such outrages, Timothy Murphy was assigned to the Schoharie Valley, a region constantly threatened by Indian raids, 25 miles west of Albany, New York. In the spring of 1779, Murphy was called in when British-paid Indians kidnapped a young girl. All alone, he pursued them by birch-bark canoe, tracked them through heavy woods at night, and finally crept up to their campsite. At dawn he shot all four kidnappers and rescued the girl. It was incredible stuff.

After rescuing another kidnapped woman, Murphy led a team of riflemen that tracked down a



Encouraged and paid for by the British, Indian depredations on the western frontier drew away many riflemen, 1777–78.



Desperate frontier riflemen fight off a joint British-Indian attack.

party of Indians who'd lashed two kidnapped farmers to a tree and stacked wood to roast them alive. The rescuers' surprise volley killed all but one Indian and liberated the farmers.

By the fall of 1779, General Washington decided it was time to knock these Native American raiders out of the war and ordered General John Sullivan to lay waste to Indian crops and villages in New York's western Finger Lakes Region. Timothy Murphy scouted for this operation in Major James Parr's Rifle Company and accompanied a 26-man reconnaissance party that was ambushed by 500 Indians on 13 September 1779 near today's Groveland, New York. Of these scouts, only the resourceful Murphy, his partner Dave Elerson, and six others fought their way free. Their lieutenant, Thomas Boyd, was captured and tortured to death, his carcass later fed to dogs.

A year later, some 1,500 British, Hessians, Tories, and Indians swept through Murphy's Schoharie Valley to deny Washington's army the wheat harvest. The Valley's strong point, Middle Fort, manned

by 204 Continentals and Militiamen—including Murphy—was commanded by Major Melancthon Woolsey. When the first flaming arrows hit, Major Woolsey announced his intent to surrender. With his young bride, Peggy Fleeck, beside him, Murphy would not allow that to happen. Four times a British officer approached under a flag of truce, and four times Murphy fired a shot between his feet, halting him.

Finally Woolsey stormed up to Murphy, waved his sword, and shouted, “If you fire at that flag of truce again, I’ll kill you!” Murphy swung his rifle to Woolsey and warned, “I still have one shot left. And sooner than see that flag enter this fort, I’ll put a bullet through your heart.” Major Woolsey backed down, transferred command to another officer, and limped away, inspiring hundreds of “Hurrahs!” Faced by such a determined defense, the attackers decided further fighting was not worth the casualties and withdrew.

Murphy continued fighting right through the British surrender at Yorktown, by which time he had accumulated 42 confirmed kills.

SHOWDOWN AT KINGS MOUNTAIN

While Tim Murphy fought on the northern frontier, his British counterpart, Major Patrick Ferguson, was recovering from serious wounds at Brandywine. His right arm crippled and his rifle shooting days gone forever, the once enthusiastic inventor of the breechloader had become hardened by war and by 1780 led a 1,000-man Tory cavalry unit that hunted rebel sympathizers in the Carolinas. Though not so ruthless as the detested Colonel Banastre Tarleton, Ferguson was not above summarily hanging a man merely suspected of assisting the rebels or deserting a Tory unit.

Populating the mountains beyond the Carolina lowlands were “over-mountain” people who inhabited isolated valleys and largely sat out the war. Ferguson incited these fiercely independent pioneers, labeling them “banditti,” and in an ultimatum warned that “if they did not desist from their opposition to the British arms and take protection from his standard,” he would “march his army over the mountains, hang their leaders, and lay their country waste with fire and sword.”

Rather than wait for Ferguson to make good his threat, an army of frontier riflemen assembled at Sycamore Shoals, on the headwaters of Tennessee’s Watauga River. The force included Colonel Isaac Shelby with 240 Sullivan County riflemen; John Sevier with 240 Tennessee over-mountain men; and William Campbell with 400 Virginia mountain riflemen. Crossing the Smokies, the frontiersmen suf-

ferred through snow and cold to reach the warmer eastern slopes, where they were joined by Colonel Benjamin Cleveland with 350 North Carolina marksmen and 300 more sharpshooters from South Carolina, led by James Williams.

Major Ferguson's spies soon warned of their approach. Rather than escape on horseback, Ferguson had his 1,000 cavalymen occupy the highest ground in the area, a prominent hill called Kings Mountain. His dismounted soldiers stretched the length of the oblong, 400-yard hilltop, confident that their high ground and discipline could withstand whatever these "banditti" threw at them.

That morning of 7 October 1780—three years to the day since Timothy Murphy had shot General Fraser at Saratoga—Colonel Shelby instructed his riflemen, "Let each one of you be your own officer, and do the very best you can . . . shelter yourselves, and give them Indian play; advance from tree to tree, pressing the enemy and



Advancing tree to tree, 1,500 volunteer riflemen fought their way up Kings Mountain to defeat Ferguson.

killing and disabling all you can."

The hilltop, though seeming to favor defense, actually favored the rebel attackers. Only its narrow crest was wooded, with 100 yards of clearings and stumps downhill; thus, the swarming riflemen had protective cover and clear fields of fire well within range of hitting Ferguson's defenders, who soon dropped by the dozens. And, as often happens in combat, the uphill troops

overshot the downhill marksmen, even as the colorfully dressed Ferguson galloped back and forth, urging them to fight, waving his sword and blowing a silver whistle.

Eyeing the conspicuous Ferguson, a number of riflemen took careful aim. Sharpshooter Gilleland, one of Sevier's men, attempted to shoot Ferguson but his rifle misfired, so he called to a comrade, Robert Young, who fired his rifle—called "Sweet Lips"—and saw his bullet strike and throw Ferguson from his mount. At the same instant, another Sevier sharpshooter

named Kusick thought he shot Ferguson. Frank Wood, 18, who'd watched Ferguson's Tories beat his father to death, thought he, too, had shot the British officer, and "a weight I had often felt, too intolerable to bear, seemed to pass from my heart."

Indeed, *all of them* may have hit their mark. According to James P. Collins, who witnessed Ferguson's death, "almost 50 rifles must have been leveled at him at the same time; seven rifle balls had passed through his body, both of his arms were broken, and his hat and clothing were literally shot to pieces." It was an ignoble, if ironic, end to a lifelong rifleman.



Conspicuously attired and blowing a silver whistle, Ferguson is hit simultaneously by several rifle balls.

The fight was over in less than two hours, with the British and Tory force suffering 157 killed, 163 wounded, and 698 captured. Against this, the victorious frontier riflemen lost 28 dead and 64 wounded, but, most importantly, they'd eliminated the threat to their homes and families. When he learned of their triumph at Kings Mountain, George Washington personally congratulated the backwoods marksmen for their "spirit of bravery and enterprise." The rest of their lives, these proud men were held in awed respect among mountain folk as "Kings Mountain Men."

Patrick Ferguson remains there today, atop Kings Mountain, buried beneath a Scottish burial cairn, just 100 yards from where the distinguished rifleman fell.

SHARPSHOOTING IN THE SOUTH

Even before Kings Mountain, fighting had largely shifted to the south after a British landing force captured Charleston, South Carolina, early in 1780. Operating from that port, British and Tory forces fanned out across the Carolinas, where initially they fought the elusive but effective General Francis "Swamp Fox" Marion. His raids and ambushes perplexed the British, which, combined with continual harassment by rifle sharpshooters, left them largely boxed up in major towns. British soldiers, a colonial newspaper reported, were forced to survive on "parched corn, not daring to go out on the road on account of the advanced riflemen concealed in the woods." When British troops occupied Charlotte, North Carolina, they rarely ventured



Ferguson was buried atop Kings Mountain beneath a traditional Scottish burial cairn.

far except in a sizable body because Mecklenberg and Rowan County riflemen stalked their every move.

Impressed by his sharpshooters' performance, General Marion organized them into two bands, led by Captains William McCottry and Gavin Witherspoon. At a decisive moment in March 1781, as the British attempted to force their way across the Black River, some 30 backwoods sharpshooters, led by McCottry, engaged them from the opposite bank. Even Captain McCottry got in the fray and was credited

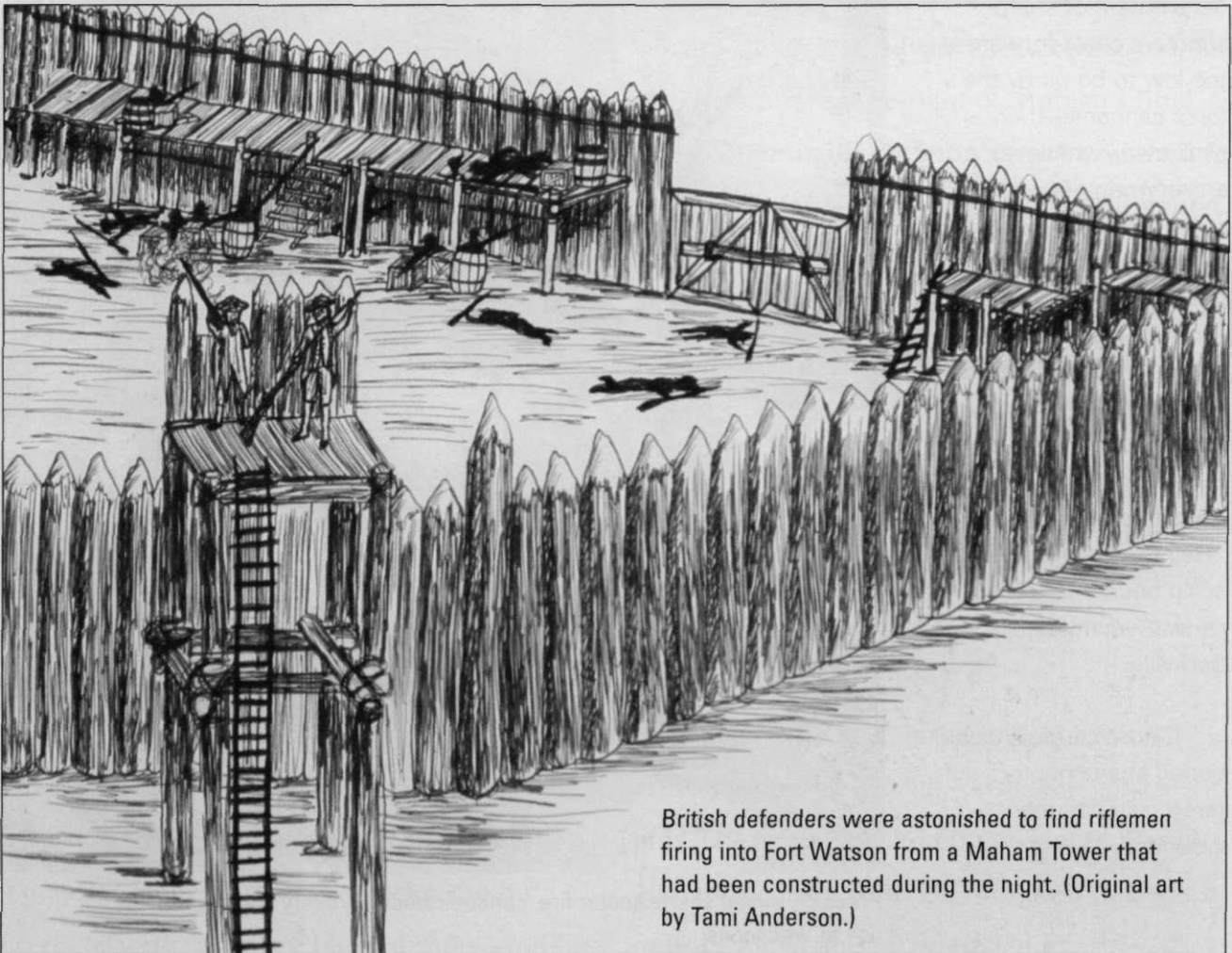
with killing an enemy officer at 300 yards. When four Redcoats rushed forward to recover the downed officer, each of them, too, was felled by a long-range shot. An especially noted sharpshooter, "Sergeant McDonald," from Cross Creek, North Carolina, shinnied to the top of a stout oak, drew a bead, and shot British Lieutenant George Torriano "at long range." Having suffered heavy casualties and lost most of their baggage, the British withdrew and their regimental commander, Colonel John Watson, confessed, "I have never seen such shooting before in my life."

The Maham Tower

Combining ingenuity with superb marksmanship, Francis Marion's partisan riflemen seized Fort Watson, a British outpost atop a treeless bluff overlooking South Carolina's Santee River. Realizing a large British relief force was en route, Marion knew there was little time for a siege. A Continental officer on Marion's staff, Major Hezekiah Maham, realized that Marion's force lacked artillery, and rifle fire could not penetrate the fort's log walls. Studying the fort's layout, Maham had an ingenious inspiration.

At sunset the British defenders watched as rebel riflemen piled dozens of freshly cut logs just beyond musket range. During the night the defenders heard sawing and hammering. Dawn's light disclosed an amazing log tower that stood a dozen feet higher than Fort Watson's ramparts. Atop this "Maham Tower" lay a squad of sharpshooters who could fire unerringly into almost any spot inside the fortress. Under their deadly fire, Marion's men swarmed the walls, prompting the British to surrender.

Major Maham's ingenious tower caught on instantly. On 5 June 1781, Fort Cornwallis, South Carolina, too, fell to another log shooting platform, and then Fort Motte surrendered, also to a Maham Tower.



British defenders were astonished to find riflemen firing into Fort Watson from a Maham Tower that had been constructed during the night. (Original art by Tami Anderson.)

At Vincennes, on the Wabash River of today's Indiana, Colonel George Rogers Clark similarly won a short siege by sharpshooting and stratagem. After a grueling 18-day winter march, Clark's 127 men staged a surprise attack on Fort Sackville, a British outpost from which Indian raids had been staged into Ohio, Pennsylvania, and Virginia.

Brilliantly, Clark had a detachment of sharpshooters crawl forward—too low to be hit by the fort's cannons—then plink away whenever artillerymen opened the portals to fire. After shooting seven gunners, the riflemen began shooting through cracks in the fort's log stockade. Mistakenly believing his defenders outnumbered, Lieutenant Colonel Henry Hamilton—the notorious "Hair Buyer" who paid a scalp bounty to Indian raiders—surrendered Fort Sackville.

Clark's carefully positioned sharpshooters suffered only one man wounded.



Precisely aimed sharpshooter fire, concentrated at artillery portals, won the day at Vincennes.

It was also in the south, where at last, on 17 January 1781 at Cowpens, South Carolina, was demonstrated the decisive result of wisely integrating accurate, selective rifle fire with volleys of smoothbore muskets. General Daniel Morgan, former



"AIM FOR THE EPAULETS." Riflemen targeted British officers by watching for epaulets or gorgets (center) hung around their necks.

commander of the Continental Army's only rifle regiment, shrewdly arrayed his army of 1,500 men, some two-thirds of them relatively untrained militia. Arrogantly dismissing Morgan's men as unsophisticated cannon fodder, Colonel Banastre Tarleton frontally assaulted with 1,200 professional British soldiers, expecting the American lines to collapse. At first, that's indeed what seemed to happen.

Morgan had arrayed his troops in three distinct lines. His first line, 300 yards forward of his main position, consisted of 150 North Carolina and Georgia sharpshooters, selected for their superb marksmanship. Morgan ordered them to "Aim for the epaulets" (*shoot officers*), instructing them to fire only two shots apiece and then fall back just as the British began to mount a bayonet attack. Colonel Tarleton—oblivious to his officers collapsing from well-aimed shots—mis-

takenly thought the riflemen's orderly withdrawal a rout and rushed forward toward the second of Morgan's three lines.

This second line, 150 yards forward of the main American position, contained both riflemen and musket-armed militia

who fired several volleys to further attrite and disrupt the British advance; then they, too, fell back, running to the right of Morgan's final line. When finally Tarleton's troops reached the last line—manned by well-drilled Continental soldiers—they'd lost too many officers and sergeants, losing alignment and coordination. By then the sharpshooters and militia had repositioned to the American right, cutting the British to pieces with flanking fire—just as the Continentals let loose volley after volley into their shattered ranks. The final blow came as a cavalry charge, completing Morgan's brilliantly executed defense.

Utterly defeated, Tarleton's professional army suffered 100 dead—39 of them officers—plus 229 wounded and 600 prisoners. Hardly 200 escaped. By contrast, Morgan's forces lost only 12 killed and 60 wounded.

Sharpshooters and the Sea

Commanding a small British fleet, on 7 October 1775, Royal Navy Captain James Wallace ordered the town of Bristol, Rhode Island, to surrender supplies to him. Displeased by the slow response, he bombarded the defenseless town with 120 guns. A week later the Royal Navy's target was Falmouth, Maine, and this time a six-hour bombardment devastated the town, destroying 139 houses and 278 other buildings. An outraged George Washington dispatched a rifle company from Boston to help defend Portsmouth, New Hampshire, while other seaside towns similarly sought sharpshooters to defend against ships.

Only two weeks later, a fleet approached Norfolk, Virginia, to support the unpopular British colonial governor of Virginia, Lord Dunmore. The Royal Navy's landing party was driven away by 100 Culpepper Riflemen, led by Colonel William Woodford. The sharpshooters picked off so many sailors on ships' decks that two sloops ran aground and were captured. "No man could stand at the helm in safety; if the men went aloft to band the sails, they were immediately singled out," one account says. It got so bad, a British officer wrote, that Lord Dunmore, "much afraid of the riflemen, has all his vessels caulked up on the sides, above men's height."

Similar riflemen detachments proved invaluable at repelling British raiders and landing parties all along America's vulnerable coast. When a British schooner and two sloops arrived off Jamestown, Virginia, to sink the local ferries, 10 riflemen rushed to the scene and placed such effective fire on their decks that they had to abandon their mission. "Thus," wrote a local newspaper, "by the bravery of a mere handful of men, the ferry boats have been preserved from destruction." Riflemen repelled landings several times near Williamsburg, Virginia, causing a newspaper to mock, "those modern heroes of Britain, who, on the dreadful

appearance of a rifleman, like amphibious animals, fly to the watery element for security."

American sharpshooters were not only firing from shore. Bucks County, Pennsylvania, sharpshooters aboard Captain Joshua Barney's privateer, *Hyder Alley*, patrolled the Delaware River and helped recapture the ship *General Washington*, after the keen-eyed riflemen picked off every single Britisher who sought to resist on deck or in the rigging.

Inevitably, though, this job of repelling boarding parties and picking off enemy deckhands went to U.S. Marine sharpshooters.



Picking off enemy deckhands and naval officers, the first Marine sharpshooters fired from high in a ship's rigging.

Positioning themselves high in the rigging, Marine marksmen proved adept at picking away at enemy sailors. Watching a hand-to-hand melee far below, these sharpshooters distinguished Marine officers by noting the quatrefoil—a braided rope cross—on their headgear, raining death on anyone lacking the distinctive gold cord.

The Marine sharpshooters' most famous engagement was the moonlit night of 23 September 1779, when John Paul Jones' *Bon Homme Richard* crew outfought the British ship *Serapis* and captured her, an action notable for the Marines in the ship's rigging who picked off British sailors. These Marine marksmen were such conspicuous targets, however, that 67 of the waterborne sharpshooters fell to enemy fire.

Undoubtedly inspired by Morgan's triumph, two months later at the Battle of Guilford Courthouse, North Carolina, General Nathaniel Greene's American army similarly arrayed in three lines and integrated sharpshooter fire, severely attriting General Lord Cornwallis' army. Though the British took that ground, Cornwallis lost too many irreplaceable officers, among them Lieutenant Colonels James Stewart and James Webster, along with five captains and four lieutenants. Soon afterward, Cornwallis began the march northward that would lead to his entrapment at



A Continental Army rifleman (left) with other American soldiers. A true elite, riflemen never exceeded 5 percent of the Army's strength.

Yorktown, Virginia, and his final surrender to George Washington. The humiliating loss of this second British army to the rebels spelled their death knell in the Revolutionary War.

Despite the brilliance Daniel Morgan had demonstrated at Cowpens and all that had been learned during six years of fighting, rifles and sharpshooting soon were all but forgotten. Just three years after Yorktown, the Conti-

mental Army's 20 regiments had dwindled to fewer than 100 soldiers, with not a rifle-armed man among them.

THE RIFLE COMES OF AGE

Despite their impressive achievements in the Revolutionary War, the sharpshooter and his rifle played hardly any role in America's postwar army. General Anthony Wayne included riflemen in his 1794 fight against the Northwest Indians at the Battle of Fallen Timbers, but his short-lived organization, the Legion of the United States, disbanded in 1796. The reorganized U.S. Army included no rifle units.

On 13 December 1798, President George Washington wrote the secretary of war suggesting that "a corps of riflemen" would be "extremely useful." Reflecting his wartime experience—when one of 20 Continental

Army infantry regiments was rifle-armed—Washington suggested that riflemen make up 5 percent of the Army. Ironically, since he'd nearly been its victim 20 years earlier, Washington even recommended the rapid-firing Ferguson rifle as the unit's potential armament. That, of course, did not happen.

Nor did Congress move quickly to create rifle-armed units. Despite authorizing a rifle regiment in 1799, nearly a decade passed before Congress finally appropriated funds for it. Thus for 11 years, from 1796 until 1807, the U.S. military—famed worldwide for its expert marksmen—had not a single rifle company.

Therefore, the next advancements in sharpshooting and rifles would come

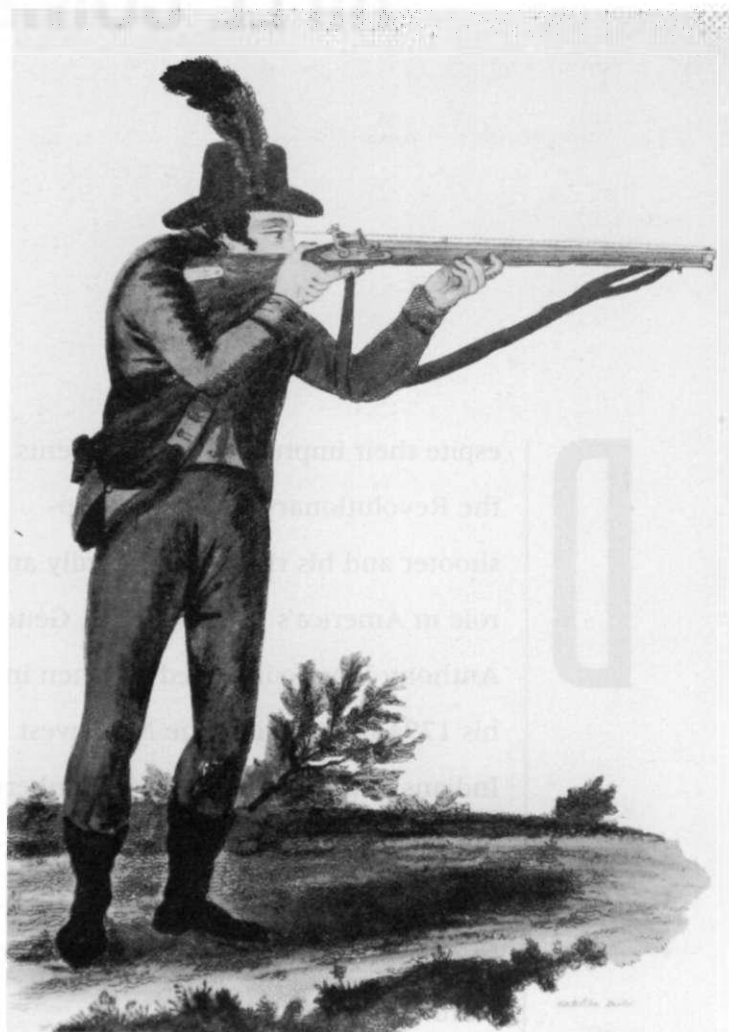
not from America, but from those who had suffered the most—and learned the most—from U.S. sharpshooters: the British Army.

EVOLUTION ON THE CONTINENT

At the very time that George Washington's secretary of war wrestled with the idea of rifle units, the British Army embraced the concept. In 1797, Parliament added a rifle-armed battalion to the 60th Regiment, incorporating a variety of British-paid foreign marksmen, including Lowenstein's Jägers and smaller detachments of Dutch, German, Swiss, and Alsatian mercenaries. Attired in the traditional rifleman's green jacket, they were commanded by Lieutenant Colonel Baron Francis de Rottenberg, the first military officer I've come upon who awarded distinctive badges for rifle marksmanship.

As the British Army moved closer to expanding these rifle-armed forces, it was not without criticism, some from high places. "I cannot help thinking that a corps armed with rifles," objected General William Clinton, "unless it is supported [by conventional forces], would be exposed in a very short time to be cut to pieces." Lord Cornwallis, whose army had been stung on many a battlefield by American riflemen, demeaned the idea of a British rifle unit as "a very amusing plaything."

Still, only a year later, in January 1800, the British Army's commander in chief ordered the "Experimental Training of Riflemen," drawing some 482 volunteers from 14 infantry regiments. This was



A British marksman, circa 1800, takes up slack in his sling to steady a shot with his Baker rifle.

Ezekiel Baker's Rifle

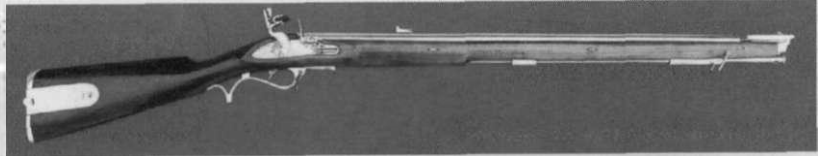
On Valentine's Day 1800, the Royal Board of Ordnance hosted a firing trial at Woolrich, England, to compare "many rifles from America and various parts of the Continent" and select the armament for the newly organized 95th Rifle Regiment. This would be the British Army's first standard-issue rifle.

Among the tested weapons, one stood out for reliability, accuracy, ruggedness, and ease of operation, a .625-caliber flintlock rifle designed by master gunsmith Ezekiel Baker. Actually, Baker's design was inspired by a German Jäger rifle given to him by Colonel Coote Manningham, a rifle regiment founder and accomplished shooter.



A 200-yard group of shots fired by a Baker rifle. The bull's-eye on this target is 24 inches wide.

Baker's claim, it's well capable of consistently hitting a foe at 200 yards. Still, among these rifles, a few would be more accurate than others, such as that of rifleman Tom Plunkett, which, combined with carefully measuring the powder and consistently ramming the ball, would tighten groups and increase maximum range.



Ezekiel Baker's rifle, the primary arm of the British 95th Rifle Regiment.



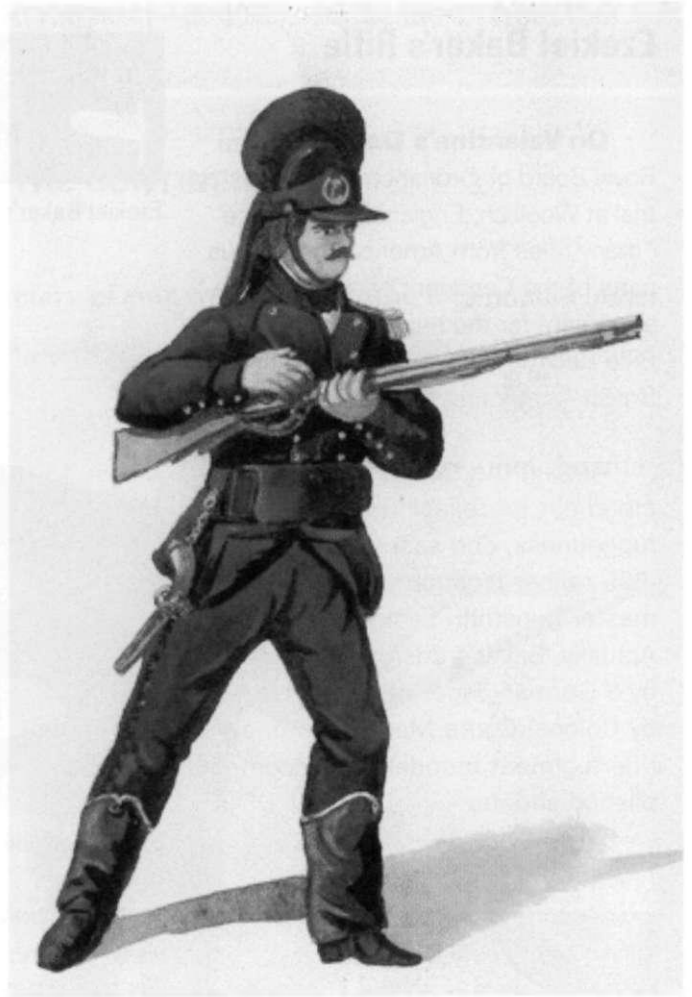
The Baker rifle lock with a freshly trimmed flint in place.

In addition to its overall design, the Royal Board favored Baker's seven-groove, slow-twist rifling (1/4 turn in its 30-inch barrel), believing this would better withstand black powder fouling than other designs, a major concern because fouling could impede reloading in a heavy engagement. Though officially designated the Model 1800, it would be known as simply the "Baker" rifle.

The Baker rifle weighed 9.5 pounds, with an overall length of 45 inches, and fired a ball weighing 1/20 of a pound, or 350 grains. It mounted an impressive bayonet sporting a 24-inch blade. The leaf rear sight was dovetailed into the barrel and zeroed for 200 yards. Baker wrote in his book, *Remarks on Rifle Guns*, "The sights on the rifles for the King's troops are intended for 200 yards point blank," which he considered the rifle's maximum effective range. This is borne out by the groups depicted in his book: analyzing the 200-yard group indicates that the vertical spread is so great—43 inches—that it must reflect intentional holdover or variations of powder charge. I think the more representational group spread is horizontal (despite a bit of wind drift), which measures 16 inches. That's not tack-driving, but, true to



A Hessian Jäger, or sharpshooter, of the Napoleonic era.



A Russian Jäger rifleman of the Napoleonic Wars.

quite different from the situation in America, where frontiersmen had mustered with their own Kentucky Long Rifles and required little training. By contrast, nearly all these sons of Ireland and Scotland had never even held a rifle before assembling at Swinley Forest, 20 miles west of London, for eight months' rigorous training. Indicative of Britain's commitment was a brand-new firearm developed especially for these men—their country's first standard military rifle—the Model 1800 or "Baker" rifle.

Marksmanship training began with each student zeroing his Baker on a bench-mounted rest, called a "horse," and firing at 50 yards until he'd learned to properly employ his sights. Afterward, the student increased practice-fire distances until eventually he was shooting 200 yards, considered the Baker's maximum range.

Reflecting a European approach to the rifleman's role, British students devoted most of their training to practicing tactical formations as skirmishers and flankers, much more so than firing as sharpshooters.

Still, in this era of smoothbore muskets, their rifles' greater range and their ability to hit selective targets made every rifleman a potential sharpshooter, at which these soldiers considered themselves no less skilled than their American counterparts.

After completing training, most of the new riflemen returned to their parent regiments to serve as skirmishers, scouts, and flank security. Rarely would these men be employed as sharpshooters. However, another 70 graduates were retained in a single body, which, along with 26 officers, was proclaimed the British Army's "Corps of Riflemen."

As the possibilities of what this new corps might accomplish began to sink in to higher levels of command, more riflemen were trained and the Corps of Riflemen gradually expanded until it was officially pronounced, "the 95th or Rifle Regiment." This was none too soon, for the forces of Napoleon's France now threatened to overrun all of Europe.

Napoleon's Sharpshooters

Reflecting his army's widely held opinion, one French general found the rifle "an unsuitable weapon for the French soldier, and would only have suited phlegmatic, patient assassins." Another general thought rifle-armed soldiers would plink away from afar rather than close with the enemy and decide the matter with a bayonet. That was contrary to the French fighting spirit!

Thus, French Marshal Jean de Dieu Soult did not employ sharpshooters against the 95th Rifle Regiment in Spain, and the French army generally lacked rifle units, but that doesn't mean Napoleon had no sharpshooters—it's simply that *they were foreigners*.

Against the Russians and Austrians, several rifle-armed foreign battalions performed the sharpshooting role in Napoleon's eastern army. The most elite was the 600-strong, all-volunteer *Tirailleurs Corses* (Corsican Sharpshooters) from Napoleon's native Corsica, organized and led by the emperor's cousin, Philippe d'Ornano. Another rifle battalion, this from northern Italy, was the *Tirailleurs du Po* (Sharpshooters of the River Po), composed of mountain men accustomed to hunting, scouting, and shooting. From the Grand →



A Tyrolean Jäger of the Napoleonic era.



*Savolaks Jägar
(in Skiden)*

Duchy of Warsaw (today's Poland) came a third battalion-size unit of riflemen, recruited from among foresters and hunters, while Denmark supplied two more rifle-armed battalions, the Slesvigske Jägerkorps and the Holstenske Korps of Skarpskyttekorps.

Renowned for preferring bold maneuvers—massed artillery barrages, cavalry charges, and bayonet assaults—there's little record of how these riflemen contributed to Napoleon's operations in the east.

A Napoleonic-era Finnish sharpshooter.

THE 95th RIFLE REGIMENT IN COMBAT

In July 1808, the newly organized 95th Rifle Regiment deployed to Portugal with Lord Wellington's army to open a second front against Napoleon, who already had conquered much of Europe. For the next five years, while the Austrians and Russians fought Napoleon in the east, Wellington's army would fight him across Spain and Portugal.

Initially, the 95th served solely as Wellington's advance guard or skirmishers, always in the vanguard or protecting his army's left flank. Advancing tenuously, these riflemen-skirmishers acted like the open fingers of a hand reaching out to feel for stiff resistance or vulnerable softness, so that Wellington's closed fist—his cavalry, artillery, and infantry—might punch more effectively.



His Baker rifle cocked and ready, a 95th Regiment rifleman advances tenuously in Spain.

Air Rifle Sharpshooters

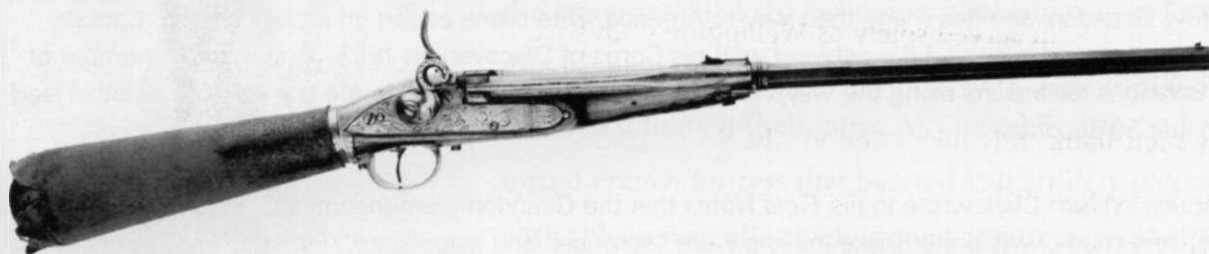
When French General Edouard-Adolphe-Casimir-Joseph Mortier paused during an 1800 battle in Austria, he was surprised to see “an orderly sergeant who was standing close to us leap up very high into the air and then fall down. We supposed, at first,” he recalled, “that he was in a fit, and we were greatly astonished to find him dead, as nothing had been heard or seen to injure him. On his being undressed, however, a ball was found to have struck him, which must have been shot from an air-gun in the adjoining field. . . . [We] lost many fine men by that corps of Austrians.”

“That corps of Austrians” Mortier cited were specially trained Tyrolean sharpshooters, armed with the most novel secret weapon of the 18th century, the Austrian Model 1779 *Repetierwindbuchse* (repeater wind rifle). Think of it—*smokeless, almost silent, yet lethal at 100 yards*. “On account of this treachery,” reported General Mortier, his troops “hung all that corps that fell into their hands, considering them not as soldiers but assassins, and never gave them any quarter.”

This amazing sharpshooter’s air rifle had come to the attention of Austrian Emperor Joseph II in 1779, who had it tested by Field Marshal Franz Moritz. Convinced of the air rifle’s superiority, the emperor summoned its inventor, Italian gunmaker Bartholomeo Girandoni, to Vienna to produce it under the utmost secrecy.

Instead of a tiny pellet, Girandoni’s air rifle fired an 11.5mm ball, approximately .45 caliber, with sufficient power to penetrate a 1-inch board at 100 yards. At a time when the only repeating firearms were double-barrels, and even smoothbores fired just two to three rounds per minute, the Girandoni rifle could get off 20 shots in a half minute without reloading. Some 49 inches long and weighing nearly 10 pounds, it was similar in size and weight to a conventional musket. Its 32-inch wrought-iron barrel’s rifling rotated the ball once in 26.25 inches.

The rifle’s compressed air was contained in its detachable stock, actually a leather-covered metal reservoir or flask, which held air sufficient for about 30 shots. Using a small hand pump, the sharpshooter could refill his flask, with 600 pumps achieving a pressure of 60 atmospheres and projectile velocity of perhaps 500 feet per second. Considerably more pressure was yielded from a wagon-mounted compressor, capable of 150 atmospheres and generating a more lethal 900 feet per second. (At this higher pressure, however, the flasks occasionally burst, sometimes causing serious injuries.) Under ideal conditions,



The remarkable Girandoni air rifle, an Austrian sharpshooter’s weapon and an arm for the Lewis and Clark Expedition. (Courtesy of the West Point Museum.)

each air rifle sharpshooter had two or three flasks, with runners bringing him reloads from the nearby wagon, which held 2,000 preloaded flasks. The sharpshooter carried reload lead balls in 20-round tubular speedloaders.

A few years ago, the dean of American airguns, Dr. Robert D. Beeman, fired tests with a custom replica Girandoni air rifle and found that its 210-grain ball attained a muzzle velocity of 750 feet per second. Ballistically, this is comparable to a modern .38 Special or .45 Colt Auto pistol projectile—which is, indeed, potentially lethal at 100 yards. An 18th-century test of a similar air rifle firing 120-grain balls yielded an even faster 900 feet per second. Running this data through my Sierra Exterior Ballistics software, I found that the bullet drop at 100 yards exceeded 2 feet—meaning, as Beeman had concluded and 18th-century literature suggested, the maximum range was no more than perhaps 100 yards.



The Girandoni's leather-covered butt contained a detachable flask filled with compressed air. (Courtesy of the West Point Museum.)

Despite its limited range, the Girandoni air rifle was originally issued only to select riflemen from Austria's fusilier regiment, but rough handling and improper maintenance caused frequent malfunctions. Thus, Emperor Joseph had his secret weapons redistributed to specially trained Tyrolean sharpshooters who better understood how to care for these rather delicate instruments.

During Austria's 1788–89 War against Turkey and a 1790 fight with Prussia, the Girandoni air rifle was used extensively and proved itself in combat, offering a high rate of fire, reasonable accuracy, and lethality, without generating gun smoke or muzzle blast. One Tyrolean sharpshooter report noted, "These weapons were really accurate and effective."

Despite these benefits, however, the air rifles could not stand up to field use, with the repeater feed breaking down and leather seals failing. In 1801, the Tyrolean sharpshooters' commander complained that of his 500 air rifles, only 101 were usable. Soon afterward, the worn-out airguns were withdrawn and replaced by conventional rifles.

A few Girandoni air rifles made their way to America, where one ended up in the hands of Captain Meriwether Lewis. He carried it westward with his Corps of Discovery in 1803–05 and fired a number of demonstrations for Indians along the way, never failing to amaze them when he pumped off 20 lethal lead balls in just 30 seconds.

Captain William Clark wrote in his *Field Notes* that the Girandoni demonstrations "astonished [the Sioux Indians] very much," while the Snake Indians were "surprised and astonished." Perhaps, as Dr. Beeman has suggested, these firepower demonstrations deterred the Indians from attacking the Lewis and Clark Expedition. Dr. Beeman today owns an authentic Girandoni air rifle tentatively identified as being the very one Captain Lewis fired those many years ago.

"I never saw such skirmishers as the 95th," one British officer reported. "They possessed an individual boldness, a mutual understanding, and a quickness of eye in taking advantage of the ground, which taken altogether, I never saw equaled." Another wrote, "The Rifle Corps were skirmishers in every sense of the word; a sort of wild sportsmen. . . ."

To the outside world, Wellington's five-year Iberian Peninsula Campaign appeared to be a seesaw of advances and reverses, but each engagement tore another bite out of Napoleon's armies, and often it was the jaws of the 95th that ripped away that flesh.

SHARPSHOOTERS OF THE 95th

Aimed rifle fire contributed markedly to Wellington's many successful sieges and orderly withdrawals, a steady grinding over five years with accurate fire inflicting casualties on almost a daily basis. Often it was up to the 95th officers and sergeants to decide when and where to engage the

French most effectively, but these decisions demanded discretion. These sharpshooters bore the classical disadvantages of rifle-armed soldiers: a slow rate of fire compared to smoothbore musket-armed troops, and a conspicuous plume of smoke whenever they fired. Unlike the arms of earlier Hessian and American riflemen, however, their sturdy Baker rifles mounted a hefty, sword-sized bayonet to ward off sudden French assaults.

Where the British riflemen particularly excelled was amid Wellington's sieges, such as his month-long encirclement of the French stronghold of Badajoz. Day after day, the green-jacketed sharpshooters plinked away at French infantrymen who peeked over ramparts or artillerymen who attempted to man their guns. At Ciudad Rodrigo, a reinforced French fortress that boasted 150 artillery pieces, the 95th riflemen so effectively sniped at gun crews that French artillerymen feared even showing their faces. Indeed, they lived up to hopes of an early 95th commander, Colonel



A British rifleman with a Baker rifle, approximately 1815.

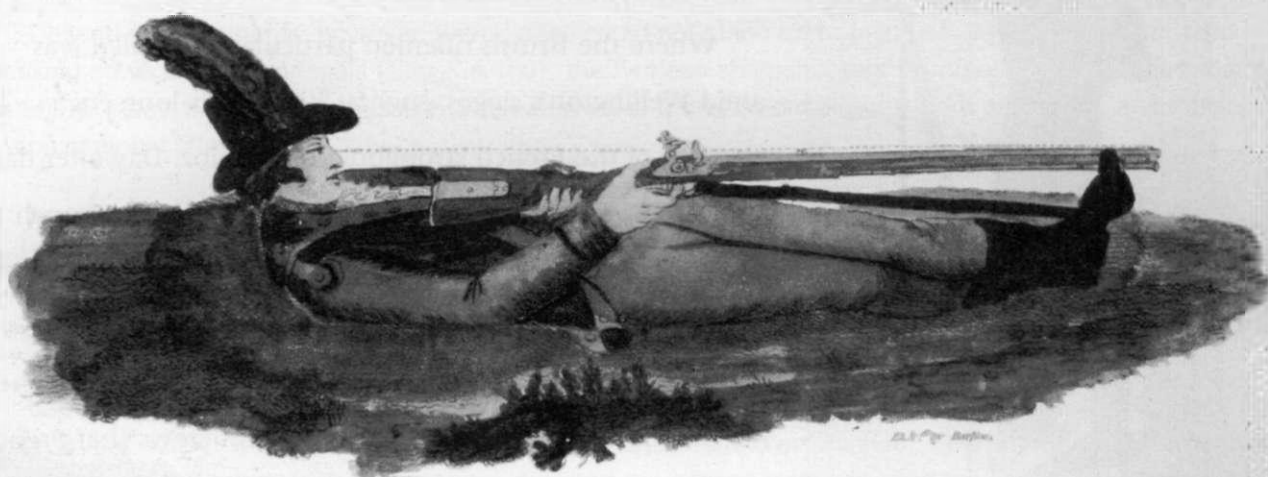
The Man Who Shot Colbert: Tom Plunkett

Among the 95th Regiment's many fine marksmen, one sharpshooter especially stood out as a "favorite with both officers and men, besides being the best shot in the regiment." This was Tom Plunkett, fit and courageous but with a tendency for drinking and brawling that precluded high rank. In combat, however, there wasn't a finer soldier in the regiment.

Reminiscent of his fellow Irishman, American sharpshooter Timothy Murphy, Plunkett earned immortality through a single long-range shot. On 3 January 1809, during the British retreat from Coruna, Spain, Plunkett's regiment was barely holding off a pursuing French cavalry force led by General Baron Auguste Colbert de Chabanais. At Cacabelos, Colbert's massed horsemen quickly overran the town and seized a key bridge, threatening the British rear. In the distance, Plunkett watched Colbert pause to reorganize his men—some 500 yards away, far beyond a Baker rifle's range.

"Fearless of all danger to himself," one account observes, while other British riflemen watched, Plunkett crept forward, then low-crawled until he was just beyond 300 yards from the colorfully uniformed Colbert—still beyond his rifle's theoretical range. Assuming his favorite position for precise aiming—lying on his back with his rifle steadied on his thigh, the sling pulled taut by his left foot—Plunkett delicately elevated his front sight blade above the distant French general's head, squeezed, and . . . one of Napoleon's boldest young generals tumbled from his saddle, shot dead. While Plunkett reloaded, Colbert's orderly trumpeter galloped to his commander's side—only to be shot dead, too. Then Plunkett ran for his life as a dozen French cavalrymen bore down on him, only to be knocked from their saddles by rifle fire from his cheering comrades. Back among his fellow riflemen, Plunkett added his fire to theirs and inflicted such shocking losses that Colbert's leaderless regiments were sent "flying to the rear much faster than they advanced."

Though less distinguished personages, many other foes also fell to Plunkett's superb shooting. During an expedition in Argentina, for example, along with a rifleman named Fisher, Plunkett climbed atop an outhouse roof and, despite heavy enemy fire, spent hours shooting "every Spaniard who ventured to show himself within



Tom Plunkett's favorite firing position: on his back, his rifle steadied on his thigh and sling pulled taut by his left foot.

range." Plunkett later estimated, "I killed about twenty" that day alone. (Here he was a bit too quick on the trigger, however, for one Spanish officer he mistakenly shot was waving a white flag.)

Today's British Army has memorialized the remarkable rifleman Tom Plunkett with a silver plate presented annually in his name to the top marksman in the Royal Green Jackets. As well, the match winner is given a genuine 200-year-old Baker rifle, which he holds until the following year's competition.

Dan Collins of the Royal Green Jackets displays the Baker rifle and "Thomas Plunkett" Trophy awarded him as his regiment's top marksman in 2006.



Coote Manningham, who forecast that "riflemen may be employed . . . with great success against field artillery [by] keeping up a steady fire, the enemy's guns . . . will soon be obliged to withdraw."

In another counterartillery engagement, the sharpshooter's Baker rifles proved more than effective against French guns some 350 yards away. "We kept up an incessant discharge of small arms," recalled one veteran, "which so annoyed the French gunners that . . . they ceased to annoy us." Firing well-aimed shots across Spain's Guadiana River, another 95th soldier noted, "had the desired effect, and the field pieces were withdrawn into the fort, after some of the gunners had bitten the dust."

Similarly, at Rodrigo a specially organized party of 32 sharpshooters crept through the darkness until they gained the high ground above French gun positions. Whenever the French fired artillery, the hidden riflemen fired, wounding the gun crews and wearing away the town's defenses.

The riflemen also proved themselves acutely suited to fighting delays, as was the case when Tom Plunkett shot French General Auguste Colbert (see "The Man Who Shot Colbert: Tom Plunkett," page 72). Whether knocking French cavalymen from their saddles or cutting down French infantry from the heights of Torres Vedras, Wellington's phased withdrawals enabled the riflemen to inflict heavy casualties without incurring similar losses, virtually a half decade of lopsided engagements that attrited the French, who consistently suffered twice the loss rate as the British. There could be no question of the 95th Rifle Regiment's effectiveness.

After a particularly bloody fight at Tarbes, a 95th officer reported a terrible slaughter of French troops that had mass-assaulted his men. "The loss of the enemy from the fire of our Rifles was so

The Death of Nelson

Napoleon's army did not especially value sharpshooters, but this was not true of the French navy, which often placed riflemen in their man-of-war's rigging to snipe away at the decks of British ships. It was just such a French sharpshooter who inflicted Britain's greatest loss of the Napoleonic Wars.

Viscount Horatio Nelson, perhaps the greatest admiral of all time, was on the verge of his monumental triumph off the Spanish coast, at Trafalgar, on 21 October 1805, when the French warship *Redoubtable* sailed alongside his flagship, the *Victory*. High in the French ship's rigging, a marine rifleman, allegedly Robert Guillemand, looked down his sights to behold a one-armed figure wearing a distinctive plumed hat. Aiming center-mass, he fired, putting a bullet through Nelson's left arm and hitting his spine. Carried below deck, Nelson died 3 1/2 hours later, uttering his final words, "Thank God I have done my duty."



Viscount Horatio Nelson lies dying after being shot by a French sharpshooter at the 1805 Battle of Trafalgar.

This was not all the sharpshooting that day, however. In addition to Viscount Nelson, French riflemen killed more than 50 men aboard the *Victory*. According to an account written shortly after Trafalgar, British riflemen returned the fire, "and it was not long before there were only two Frenchmen left alive in the mizzen-top of the *Redoubtable*." One was the sharpshooter who'd shot Nelson. "An old quartermaster had seen him fire," the account continues, "and easily recognized him because he wore a glazed cocked hat and a white frock." Two young midshipmen, "Mr. Collingwood and Mr. Pollard," grabbed rifles to fire at the two French marines while the quartermaster passed them powder and bullets. Pollard shot one Frenchman when he tried to flee, but the other French rifleman fired and shot dead the old quartermaster. Then, Pollard and Collingwood fired simultaneously, both shots striking down the sharpshooter who had killed Viscount Nelson.

In addition to the Nelson memorial column in London's Trafalgar Square, tourists today can view his bullet-torn coat at the National Maritime Museum in Greenwich. The engagement's most unusual relic, however, is half the deadly bullet, which was plucked from Nelson's body, split, and many years later acquired by Yale University. Preserved in a casket of ivory and olivewood, the Nelson bullet was last displayed by Yale in 1995.

great that one could not believe one's eyes." General Andrew Barnard agreed, reporting, "The enemy lost as many men as I think it possible to be knocked over in so short a time."

How painful, then, that in their last great fight against Napoleon at Waterloo, Wellington unimaginatively employed the 95th Rifle Regiment's 1st and 2nd Battalions as conventional infantry, advancing them as straight lines into smoothbore-armed French infantry. As they were denied the flexibility to act as skirmishers and unable to exploit their rifles' accuracy or superior range, their low rate of fire left them vulnerable to the faster-firing French. In just three days at Waterloo, the 1st and 2nd

Battalions suffered 46 percent casualties.

The regiment's 3rd Battalion, however, was not present at Waterloo. Instead, those seasoned marksmen were 5,000 miles away, where they would bring their Baker rifles to bear in another epochal confrontation, this against an old enemy—the Americans.

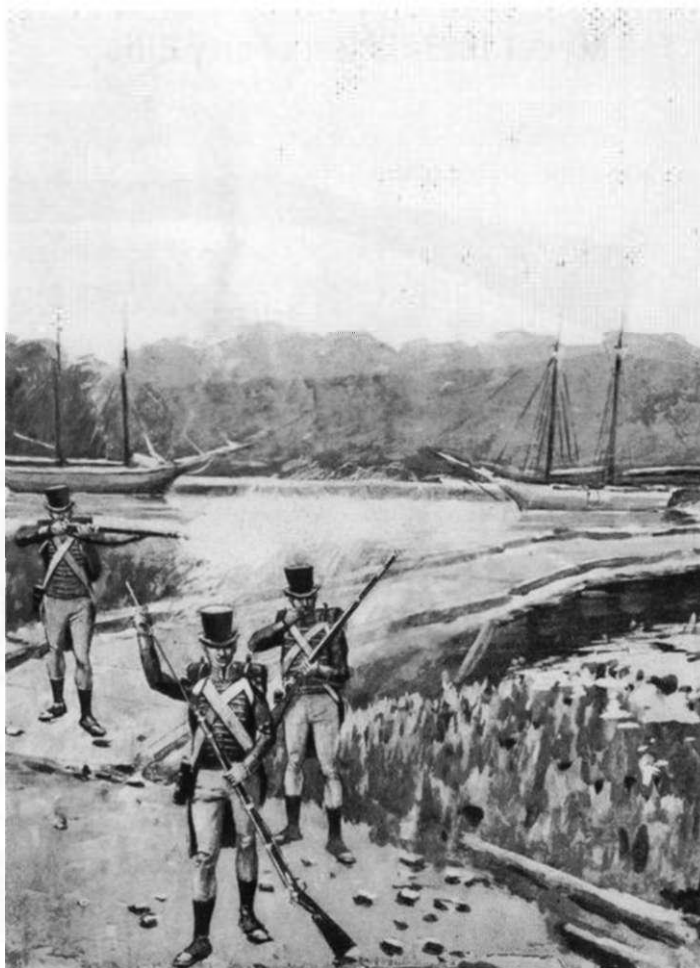
RIFLEMEN AND SHARPSHOOTERS IN THE WAR OF 1812

While Wellington's army was fighting in Spain, conflict erupted between Britain and the United States, instigated largely by the Royal Navy's blockade of Napoleon's Europe and heavy-handed treatment of American ships on the high seas.

The U.S. Army began the War of 1812 with seven smoothbore musket infantry regiments and one half-strength rifle regiment of about 700 men. These few riflemen, armed with Model 1803 flintlock rifles, deployed as 100-man companies and smaller detachments along the northern frontier, where most initial fighting ensued.

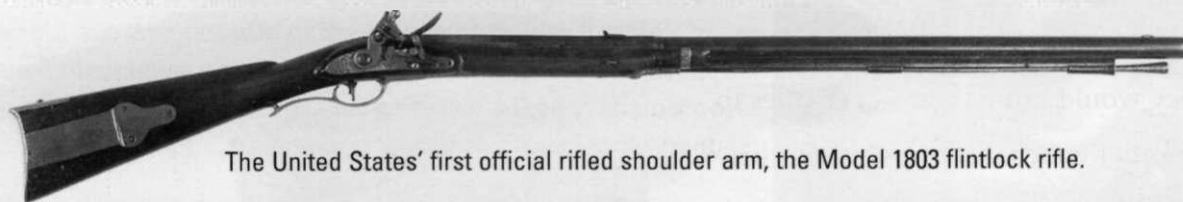
Seldom did northern battles rise above large skirmishes or short incursions. The British and Indian attack on Ohio's Fort Stephenson, for instance, lasted one day and was handily repulsed by Major George Croghan and volunteer Kentucky sharpshooters. At the August 1814 Battle of Conjocta Creek, near today's Buffalo, New York, 300 concealed American riflemen, led by Major Lodowick Morgan, soundly defeated some 600 British troops. British officers, one history reveals, "said it was the devastating accuracy of the American riflemen which foiled them." Two U.S. riflemen were killed, while the British suffered 11 killed, 17 wounded, and 4 missing.

Perhaps the war's greatest small-unit action was the Battle of Big Sandy Creek at Lake Ontario, where 150 riflemen and 130 Oneida Indians, led by the 1st Rifle Regiment's Major Daniel Appling,



U.S. Army riflemen-sharpshooters during the War of 1812.

The Model 1803 Harpers Ferry Rifle



The United States' first official rifled shoulder arm, the Model 1803 flintlock rifle.



The lock of the U.S. Model 1803 flintlock rifle, the weapon issued to rifle regiments in the War of 1812.

U.S. Army Rifle Regiments in the War of 1812 were armed with the Model 1803 flintlock rifle, the country's first official rifled shoulder arm. Manufactured at the government's Harpers Ferry Arsenal, the '03 initially employed a 33-inch barrel and later a 36-inch barrel, still a full foot shorter than the classic Kentucky Long Rifle. Its stock, too, was shorter, about half the rifle's overall length, giving it a sportier look, improved balance, and better handiness than a long rifle. Its rifling turned one rotation in 49 inches. Of .54 caliber, the Model 1803 fired a half-ounce ball with accuracy superior to its British counterpart, given its longer sight plane.

Secretary of War Henry Dearborn commended the 1803's "great facility" in loading, "in addition to their being less liable to become foul by firing [giving] a decided advantage to men of equal skill and dexterity over those armed with the common long rifle." Of historical interest, the 1803 was also the world's first firearm assembled from interchangeable parts, making it simpler and less expensive to build.

Rifleman-Ranger Benjamin Forsyth

Lieutenant Colonel Benjamin Forsyth was the Robert Rogers and Daniel Morgan of the War of 1812. A master of raiding, scouting, and ambushing—and an inspiring leader—Forsyth led many small-unit operations along New York's northern border and occasional forays into Canada. He grew up in North Carolina, just 100 miles from Kings Mountain, where volunteer riflemen had defeated Major Patrick Ferguson's Tories in 1780. As a youth, Forsyth quite likely knew some Kings Mountain Men and drew childhood inspiration from their tales of derring-do.

Shortly after Congress declared war, then-Captain Forsyth arrived at Sackets Harbor, New York, with a company of the 1st Rifle Regiment, the first regulars to reach the northern frontier. From his base on Lake Ontario and later at Ogdensburg on the St. Lawrence River, he often launched missions to interdict supply lines and destroy enemy stockpiles. For instance, on 21 September 1812, Forsyth and a company of riflemen, along with 30 New York militiamen, crossed the St. Lawrence River to raid a British supply dump at Gananoque, Ontario. Pushing aside the Canadian Leeds Militia, Forsyth's men seized the town and, true to their intelligence, found food stockpiles, which they destroyed, and much-needed gunpowder, which they carried away.

Five months later, learning that a British force had captured 53 Americans and moved them to Canada, Forsyth launched a rescue mission into Elizabethtown (today's Brockville), Ontario. Not only did he liberate his countrymen, but he captured 20 rifles, 134 muskets, and whole casks of ammunition.

Irritated by Forsyth's continuing raids and ambushes, on 22 February 1813 a large force of British and Canadian troops tromped across the frozen St. Lawrence River to launch a surprise attack on his garrison at Ogdensburg. Forsyth's men barely escaped, but in his haste he left behind his sword, which the British captured. It's displayed today at the Fort Wellington National Historic Site in Prescott, Ontario.

Despite the close call, Forsyth was hardly deterred. In March 1814, he and 300 riflemen patrolled north of New York's Lake Champlain to intercept smugglers and spies crossing into or returning from Canada. So feared was this "dashing daredevil from North Carolina," as one Canadian called him, that Forsyth's mere presence caused the British to reinforce several border forts and occupy the town of Lacolle.

Promoted to lieutenant colonel for his repeated successes and given command of the 1st Rifle Regiment, Forsyth's luck eventually ran out. In June 1814, he walked into a forest ambush laid by British soldiers and Indians and was killed in a short fight unremarkable but for the loss of so gallant a leader. In 1849, the newly created Forsyth County, North Carolina—which encompasses today's Winston-Salem—was named for the War of 1812's most valorous rifleman-ranger.

ambushed a British Marine landing force. Some 220 Royal Marines had come ashore to seize dozens of ships' cannons and tons of ropes and cables destined to outfit three American warships under construction at Sackets Harbor, New York. Appling's masterful ambush took them by complete surprise, killing, wounding, or capturing every enemy combatant, as well as seizing their three gunboats, three cutters, and three gigs. Only one rifleman was killed and one Oneida

Aiken's Sharpshooters

A mural in the city hall of Plattsburgh, New York, includes a critical event in town history, the 11 September 1814 tenacious defense of a bridge over the Saranac River by sharpshooters who beat back repeated assaults by British troops. What's most remarkable is that the defenders were not seasoned soldiers—as were these attacking veterans of the Napoleonic Wars—but 16 local teenage boys, firing muzzle-loading squirrel rifles.

The war reached Plattsburgh when an 11,000-man British army led by Sir George Prevost crossed the Canadian border, 30 miles away, and approached along the same route as Burgoyne had 37 years earlier. Reaching the northwest shore of Lake Champlain, Prevost paused to prepare a deliberate attack on Plattsburgh.

Organized only the day before by Martin J. Aiken to help defend the town, Aiken's Volunteers had skipped school or trotted in from their father's fields to grab their guns and assist a gathering army of 4,500 regular troops and local militia. The teenage riflemen, 15 and 16 years old, were assigned the defense of a bridge well away from where the major British attack was expected. Aiken wisely situated them in a stone mill overlooking the bridge, whose planks were torn up.

In a surprise flanking attack, however, a British light infantry unit attempted to cross the bridge, only to be thrown back by precise rifle fire. Again, the British attacked, and, again, Aiken's Sharpshooters stopped them. "Several times," a U.S. Army history notes, "... did the British attempt to cross the Saranac, each time they were repulsed." On other fronts, too, the attackers were repelled. What was to have been a joint land-naval attack supported by British ships on Lake Champlain became disjointed, and eventually the British fleet was defeated, turning the entire force back to Canada.

The American commander, Brigadier General Alexander Macomb, was so impressed by the young riflemen's heroism and marksmanship that he promised each boy a new military rifle, a vow that went unfulfilled until 1826 when Congress passed a joint resolution awarding a specially inscribed Hall Rifle to each sharpshooter: "For his gallantry at the siege of Plattsburgh." One such rifle is displayed today in Plattsburgh at the Clinton County Historical Museum.

Martin Aiken's heroic young sharpshooters were Azariah C. Flagg, Ira Wood, Gustavus A. Bird, James Trowbridge, Hazen Mooers, Henry K. Averill, St. John B.L. Skinner, Frederick P. Allen, Hiram Walworth, Ethan Everest, Amos Soper, James Patten, Bertimeus Brooks, Smith Bateman, Melancthon W. Travis, and Flavius Williams.



Each Aiken sharpshooter received a Model 1819 Hall Rifle by order of the U.S. Congress.



General Sir Isaac Brock, commander of British troops in Upper Canada, died at the Battle of Queenstown Heights, the target of an American sharpshooter.



Colonel Richard M. Johnson, commander of the Mounted Kentucky Riflemen, shoots Chief Tecumseh at the Battle of the Thames River, 5 October 1813.

wounded. Appling's achievement had an important strategic impact: his victory ensured that the new American fleet would dominate Lake Ontario.

As America's wartime demands and missions grew, Congress quadrupled the Army's rifle regiments, but only 541 riflemen were recruited in 1814, not enough to fill even one regiment. On the other side of the border, the British Army fielded no rifle units, although companies of Canadian militia riflemen were raised from York, Oxford, Kent, and Leeds County. Canadian Captain Reuben Sherwood of the 1st Leeds Militia Rifle Company distinguished himself as both a rifleman and a scout, leading small reconnaissance missions into the United States.

Though fought less often, there were several larger engagements in which rifle sharpshooters played key roles. At the 5 October 1813 Battle of the Thames River in Canada, 75 miles northeast of Detroit, Colonel Richard M. Johnson's mounted Kentucky riflemen literally won the day, shooting both on foot and from horseback. One Indian, Shabonee, later said, "I saw some of the men shoot squirrels as they rode along, and I said, 'The Indians have no such guns. These men will kill us as far as they can see.'" And they did, with Colonel Johnson personally shooting the great Chief Tecumseh, whose braves fought alongside the British and Canadian troops. Johnson's achievement—with a pistol at close range—earned him national fame and, later, the vice presidency of the United States.

But Tecumseh was not Canada's most senior leader to be shot down. That tragic distinction went

Sharpshooters in the Rigging

Commodore Oliver “Don’t Give Up the Ship” Perry’s decisive victory on Lake Erie is well known. On 10 September 1813, from his flagship, *Lawrence*, he boldly led a nine-ship flotilla that defeated a British fleet, sweeping the Royal Navy from Lake Erie.

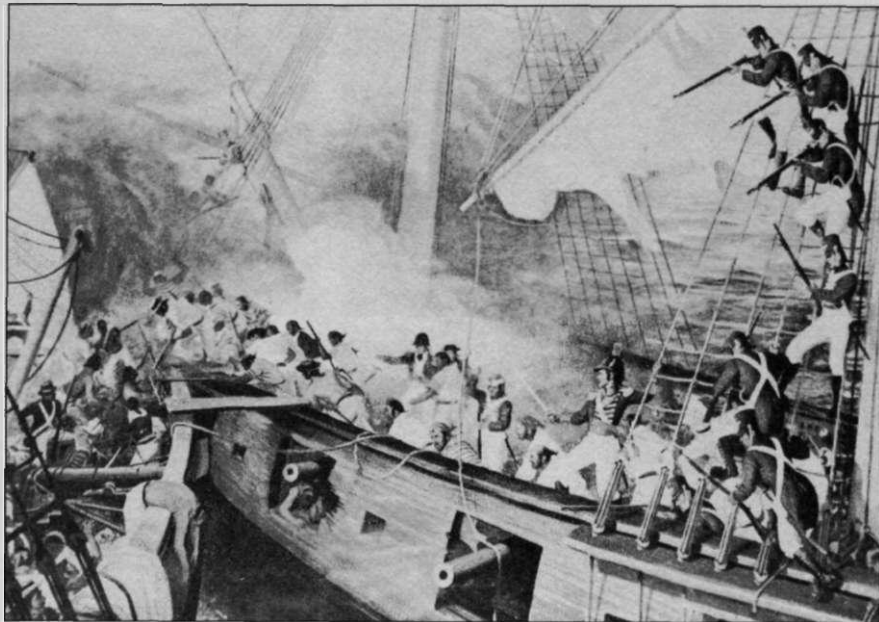
Less well known is that Perry’s triumph was supported by 100 Kentucky sharpshooters, called “volunteer marines,” who rode high in the American ships’ rigging. “Their duty,” one account notes, “was to . . . pick off British officers and gunners.”

That afternoon, while the contending ships sailed past each other exchanging cannon fire, the Kentucky sharpshooters fired, reloaded, and fired from the swaying, shifting rigging, focusing their precise projectiles on the decks of the British ships.

It’s impossible to calculate whether British casualties resulted from rifle or cannon fire, but the fact is *every British ship’s captain and deputy were killed or wounded*. Thus, some four hours after first exchanging fire, the British ships lowered their colors. The battle was won; Lake Erie was cleared of Royal Navy men-of-war.

A half century later, in early 1867, the Kentucky legislature awarded gold medals to the courageous militia sharpshooters who had braced themselves from cannonballs to provide aimed fire that turbulent day in 1813. The award arrived none too soon for Ezra Younglove, an ailing sharpshooter veteran who was presented his medal on 9 March and passed away two months later.

Other famous War of 1812 naval engagements also involved riflemen. When the USS *Constitution* dueled with the HMS *Guerriere*, U.S. Marine sharpshooters wounded the two most senior British officers. In turn, a British rifleman killed the *Constitution*’s Marine detachment commander, Lieutenant William Sharp Bush, the first Marine officer to die in combat. Four months later, battling the HMS *Java*, a *Constitution* rifleman, USMC Sergeant Adrian Peters (or Peterson), shot and killed the British ship’s captain, Henry Lambert, whose death tipped the victory toward the Americans. This sharpshooter fight, however, was not entirely one-sided; early in the fray, a British rifleman seriously wounded the *Constitution*’s commander, Commodore William Bainbridge, who managed to continue to fight.



To pick off British officers and gunners, American sharpshooters fire from high in a ship’s rigging.

to the British general in command of all forces in Upper Canada, Sir Isaac Brock. At the pivotal Battle of Queenstown Heights, 13 October 1812, a British-Canadian force slugged it out with 3,000 American invaders attempting to block the transshipment of supplies around nearby Niagara Falls. Were U.S. forces to capture this bottleneck, it would have prevented supplies from reaching British forces west of Lake Ontario. Though initially it appeared the battle would favor the United States, General Brock personally rallied his troops to defeat the Americans, but a distant American sharpshooter leveled his rifle at the British commander—resplendent in his bright uniform with gold epaulets and cocked hat—took aim, and shot him dead. Like Admiral Horatio Nelson and General James Wolfe before him, a sharpshooter struck down Brock at his moment of greatest glory.

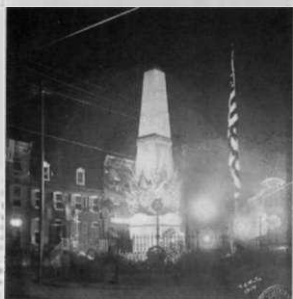
A TALE OF THREE GENERALS

The losses of high-ranking officers did not end with Brock. Testifying to the increasing range, accuracy, and effectiveness of aimed rifle fire, the War of 1812 stands unique as the only conflict in which a country's three most senior battlefield commanders all were struck down by the well-aimed fire of sharpshooters.

The inconclusive fighting along the northern border gave way in 1814 to a series of major British landings on America's coastline. Supported by the powerful Royal Navy, these punitive expeditions, beginning with the capture and burning of Washington, D.C., were intended to inflict such intolerable pain that America would sue for peace. Led by Major General Robert Ross, a much-decorated and accomplished officer, this 4,500-man landing force contained mostly veterans of the Napoleonic Wars. After torching Washington—and nearly capturing President James Madison—Ross' troops boarded their fleet for their next target for destruction: America's third largest city, Baltimore.

As the Royal Navy disgorged Ross and his army on Chesapeake Bay, an army of militia hastily formed in Baltimore. What chance did they have? General Ross had battalions of crack Royal Marines, plus the British Army's professional soldiers of the 4th, 21st, 44th, and 85th Regiments and supporting artillery. A few weeks earlier, this army had routed a force twice the size of Baltimore's militia when Ross seized Washington. In the capital, Ross had amused himself by toasting the King of England with wine liberated from the White House and then had a mule led into the hall of Congress so he might address it from the speaker's platform. Already the British fleet had anchored off Baltimore to bombard Fort M'Henry. Victory seemed certain.

Remembering Wells and McComas



Photographed on the 100th anniversary of the 1814 Battle of North Point, the 20-foot marble monument and graves of sharpshooters Wells and McComas in downtown Baltimore.

More so than any other sharpshooters in American history, the gallantry of Privates Daniel Wells and Henry G. McComas has been memorialized by their fellow citizens.

On 12 September 1858, the 44th anniversary of their great achievement and tragic deaths, their bodies were removed from Baltimore's Greenmount Cemetery and transported by military parade to a new place of rest in a traffic circle at Aisquith and Monument Streets. Their internment ceremony was marked by full military honors, a parade, and patriotic speeches attended by 25,000 people. Later, a 20-foot marble obelisk monument was placed over them. During the 1850s, Baltimore's militia sharpshooter company was named the Wells and McComas Riflemen in their honor.



Today's Baltimore County Sheriff's Department patch memorializes Wells and McComas.

Driving through Baltimore today, you can exit Interstate 95 just west of Fort McHenry and visit streets named to honor Wells and McComas. And, should you meet a Baltimore County Sheriff's deputy, look closely at his patch; in it you'll see their memorial obelisk and names, placed there to forever remember the heroic young riflemen.

Among the militia units marching eastward from Baltimore to confront the British was Captain Edward Aisquith's 70-man company of rifle sharpshooters, whose ranks included a pair of teenage marksmen, Daniel Wells, 18, and Henry G. McComas, 19. Apprentice leather workers and good friends, they had fought earlier near Washington and witnessed their army's humiliating defeat and the capital burned to the ground. They understood only too well what would happen to the homes of families and friends should the same fate befall Baltimore.

Nearing North Point where the British had landed, Captain Aisquith's sharpshooters crept forward to scout while the rest of the Baltimore militia dug in a mile behind them. Privates Wells and McComas found treetop positions from which they could see well forward and waited.

Overconfident with his career of victories and smelling another victory just down the road, Major General Ross boldly rode on horseback among his vanguard. That morning he'd boasted, "I shall sup in Baltimore tonight or in hell!"

Peering from their treetop, young Wells and McComas could not believe their eyes—an elegantly attired British officer riding among dismounted troops! History does not record the distance, but the

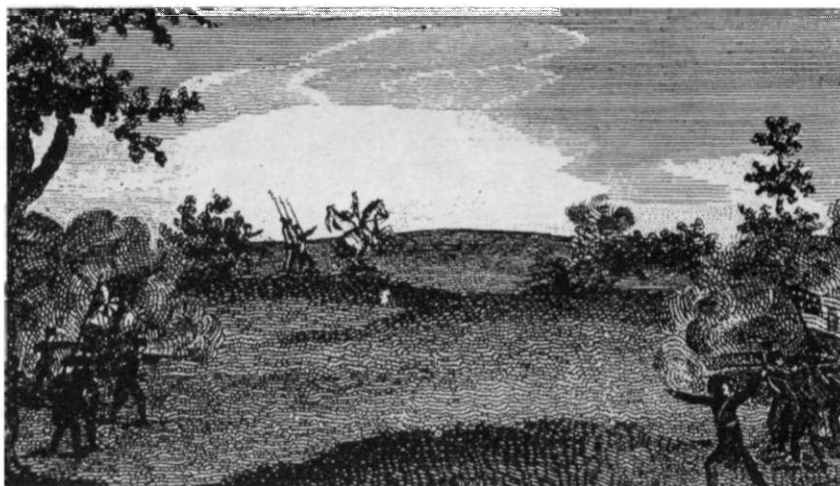
range must have been considerable, for the British marched with no concern that they were within rifle range.

The two young men sharpshooters

had to realize that to fire was all but suicidal. When their company fell back to the militia's main position, they'd stayed forward in hopes of getting a shot at an enemy officer—but firing would bring an immediate assault, and they probably couldn't reload or run fast enough to escape. Yet they knew one or two well-placed shots could make the difference. Wells and McComas raised their rifles and took careful aim—both fired, almost simultaneously.

One ball whizzed harmlessly past Ross; the second projectile shattered his bridle arm and struck him squarely in the chest. Major General Robert Ross—the man who'd burned Washington, a hero of victories in Egypt, Spain, Italy, and the Netherlands—slumped forward, fell from his horse, and died.

The effect was immediate. One eyewitness, Royal Navy Lieutenant G.G. McDonald, wrote, "I shall never forget the sight, the gloom such an



This period woodcut depicts British General Ross shot from his horse at the Battle of North Point.

appearance cast, seeing so gallant an officer dying. These Americans are not to be trifled with."

Lieutenant George Gleig of the British Army recorded, "It is impossible to

conceive the effect which this melancholy spectacle produced throughout the army."

Word of McComas' and Wells' deed electrified their countrymen, their shots wiping away the humiliating defeat outside Washington and avenging its burning. And to learn that such young lads had done this, it was as if young King Arthur had pulled the sword from the stone!

But life is not a fairy tale. As quickly as Wells and McComas fired, bucket-size plumes of black powder hung in the air, pinpointing their location. There was no mercy, no quarter. Wells' recovered body disclosed a shot to the back of the head; McComas could not have resisted, for his rifle lay beside his body, the ramrod still in the barrel. The people of Baltimore declared them "the Boy Martyrs."

The demoralized British Army hesitated and then attempted to assault the main American

position; but, inspired by Wells and McComas, the Baltimore militia held fast. Three days later the British completely withdrew.

This story, however, does not end here.

RIFLEMEN VICTORIOUS

Despite General Ross' death, British attacks on U.S. seaports continued. Sailing to Jamaica, the expeditionary force rendezvoused with ships from Europe carrying reinforcements, most notably the 3rd Battalion, 95th Rifle Regiment, fresh from combat in Spain.

Then they sailed for their next target, New Orleans. Joined by their new commander, Lieutenant General the Honorable Sir Edward Pakenham—Wellington's brother-in-law and a distinguished veteran of numerous fights—the 10,000-man force off-loaded and prepared to attack America's largest port city on the Gulf of Mexico. Hearing that riflemen were massing to fight them, Pakenham's officers were confident in the superiority of their well-drilled veterans. "When two lines oppose each other," one officer observed, "very little depends upon the accuracy with which individuals take aim."

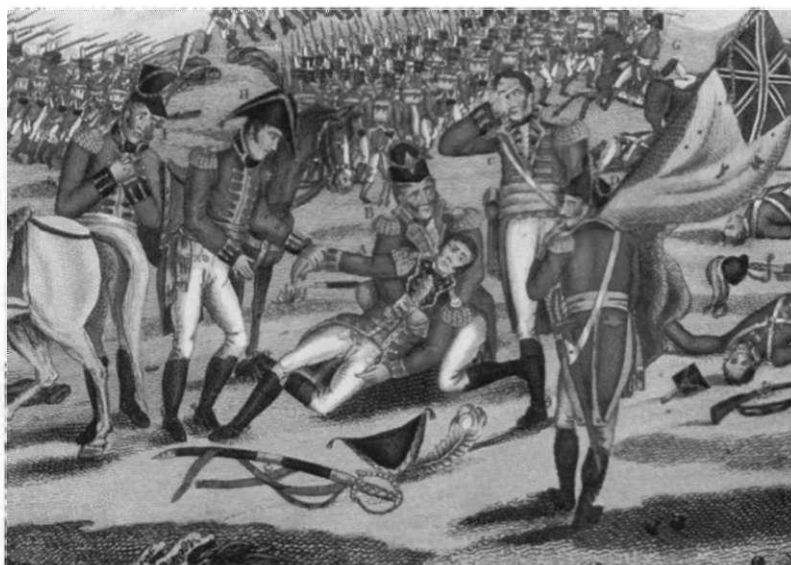
Twenty miles away, New Orleans saw the greatest massing of American riflemen in the entire war, led by the country's ablest general, Andrew Jackson. Volunteers streamed into the city. Thomas Hinds' Mississippi Rifles arrived, and Colonel William Carroll brought 800 Tennessee volunteers "expert in the use of the rifle and eager for battle." Colonel John Adair's Kentucky riflemen hastily zeroed their new rifles. Joining them were local riflemen from Captain Thomas Beale's Creole Sharpshooter Company, along with Black freemen. Even my distant relative, Thomas Plaster, arrived with his Kentucky Long Rifle. Roughly 2,000 troops—nearly half of Jackson's soldiers—were riflemen.

Just after dawn of 8 January 1815, behind a makeshift barricade of cotton bales, crates, and cypress logs, the 2,000 riflemen arrayed in four rotating rows,



Andrew Jackson's riflemen annihilate assaulting British forces at the Battle of New Orleans, the war's greatest victory.

so one sharp-shooter always stood ready to fire. General Pakenham's 7,000 British soldiers advanced across a 400-yard field in neat rows at the properly drilled rate of 62.5 yards per minute. This translated into an



Lieutenant General Sir Edward Pakenham, the highest-ranking British officer in America, falls at the Battle of New Orleans, mortally wounded by an American rifleman.

exposure time of more than six minutes, a virtual shooting gallery. The first rifle shot, personally directed by Colonel Adair when the British had closed to 300 yards—“*Snuff his candle,*” Adair said—took down Major John Whittaker of the 21st Regiment with a head shot.

Instantly, the whole American line let loose. “The fire, I admit, was the most murderous I ever beheld, before or since,” wrote Sir Harry Smith decades later, after a career of combat on four continents. Another officer saw the 44th Regiment “literally swept from the face of the earth.” Especially, the British learned, the riflemen “fired for the epaulets.” Major General Sir Samuel Gibbs, commanding the British right, trotted forward on horseback “but almost immediately toppled from his horse, mortally wounded.” Colonel Robert Dale, leading the 93rd Regiment, too, was shot

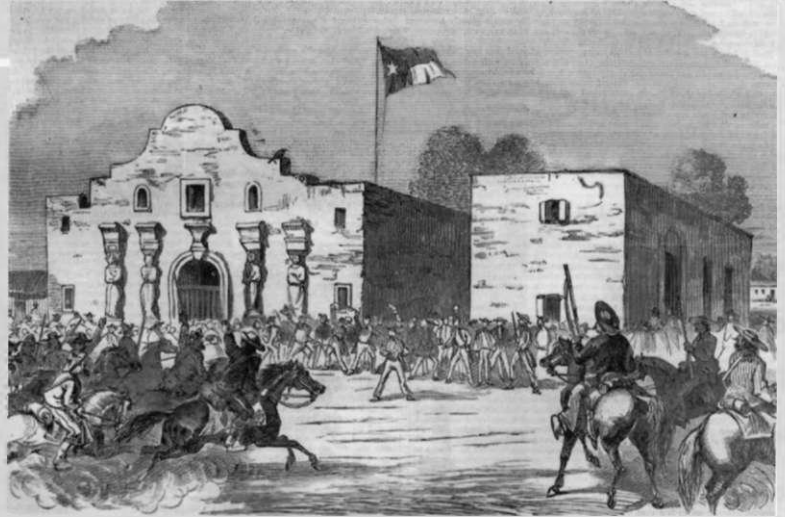
dead. General Pakenham, seeing his attack coming undone, raced forward to rally the troops, only to have his horse shot from under him. Slightly wounded, Sir Edward mounted another horse and waved his plumed hat, urging his men

to continue fighting—and making himself conspicuous. A second sharpshooter’s bullet found Pakenham, this time shattering his spine and throwing him into the arms of his aide, Major Duncan Macdougall. (Here was a grim coincidence, for just four months earlier Macdougall had similarly held the dying General Ross.) And then, on the left, Major General John Keane, too, was shot and seriously wounded.

More officers fell: in the 21st Regiment, Colonel Patterson and Lieutenant Colonel Rennie; Lieutenant Colonel Debbieg of the 44th Regiment; Lieutenant Colonels Jones, Faunce, and Brooke of the 4th Regiment. Within minutes hardly a single officer above captain in the 2nd and 3rd Brigades still stood on his feet. Casualties among junior officers, too, were considerable. Several times, British troops halted in the open to await orders

Wars with Mexico

Fought by settlers and U.S. volunteers against the army of Mexico, the 1836 Texas War of Independence proved the last American conflict in which Kentucky Long Rifles played a significant role. Nearly all of the Alamo's 188 defenders were armed with rifles, some already converted from flintlock to percussion. As frontiersmen and Indian fighters, these were experienced marksmen whose shooting skills held off a 3,000-man army for 12 days before being overwhelmed.



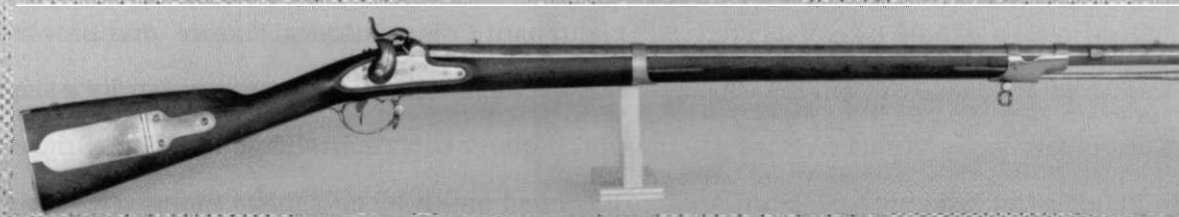
The Battle of the Alamo included both American and Mexican sharpshooters (called *cazadores*) firing British Baker rifles.

Among those noble defenders, 49-year-old Davy Crockett especially demonstrated his ability to hit artillerymen. "Old Crockett thus killed five men at one gun," observed Theodore Roosevelt in his account of the battle.

Sharpshooting later contributed to victory at the Battle of San Jacinto, too, where "[Sam] Houston gave orders that those men who . . . killed deer at a hundred paces offhand should come forward and take a shot at the Mexicans."

Not all of the sharpshooting was on the American side. At the Alamo, Mexican General Antonio de Santa Anna's army included several companies of *cazadore* scout-skirmishers, armed with surplus British Baker rifles. Though the rifles were few in number, their fire especially had a telling effect compared with the Mexicans' more numerous smoothbores.

Most likely it was a Baker rifle that Mexican sharpshooter Felix de la Garza had held two months earlier when he climbed a tall cypress tree in San Antonio to shoot Ben Milam, an early hero of the Texas War of Independence. Famed as "the best shot in the Mexican army," Garza spotted Milam, the co-commander of volunteers attacking San Antonio, when the Texan raised his head above a wall with a pair of field glasses. Hardly was Garza's deadly shot off when "several rifle shots rang out, and the corpse of the daring sharpshooter crashed down through the branches." Despite the loss of Milam, his men fought on to victory.



America's first percussion rifle, the Model 1841, made famous as the "Mississippi Rifle" in the Mexican-American War. (Courtesy of American Precision Museum Association, Inc.)

(Horticulturist Richard Hurd, who tends trees on today's San Antonio River Walk, says the spot where Garza fired is now occupied by a Holiday Inn.)

When the Texas Republic joined the United States a decade later, instigating the Mexican-American War, again America was poorly prepared. In 1821 Congress had disbanded the army's last rifle regiment, not restoring it until 1843. And despite the growing prevalence of percussion rifles, senior military leaders questioned the percussion's reliability and armed these riflemen with obsolescent flintlocks.

Congressman Jefferson Davis, a former U.S. Army officer and West Point graduate who led his state's 1,000-man regiment of volunteers, went directly to President James Polk to obtain the new Model 1841 Harpers Ferry rifle. In the hands of his Mississippi Volunteers, this first U.S. military percussion rifle proved so effective in combat that it was called the "Mississippi Rifle" and his valorous unit the "Mississippi Rifles."

Their value undeniably established after the Mexican-American War, riflemen and rifle-armed units at last would be a permanent part of American military forces. And Jefferson Davis, of course, would go on to become president of the Confederacy.

The last significant sharpshooter shot of the war, however, was fired by a Mexican rifleman. On 13 September 1847, riding into Mexico City at the head of his brigade to occupy the surrendered city, Brigadier General John Garland proved an irresistible target for a hidden marksman. His shot struck Garland center-chest, severely wounding the senior officer shortly before hostilities ended.



Brigadier General John Garland was severely wounded by a Mexican sharpshooter.

that did not, and could not, come, while, like a terrible reaper, rifle bullets methodically tore away at rank after rank. All across the field, heaps of fallen men stacked up, and still the shooting did not stop. Finally, the leaderless units broke and ran.

The statistics speak for themselves: in less than a half hour, 868 British soldiers died, with another 2,468 wounded, for total casualties of 3,336. Their losses included three generals—Pakenham, Keane, and Gibbs—the former of them the most senior British commander in America. The Americans lost 8 dead and 13 wounded.

Suffering no less than any unit was the green-jacketed 3rd Battalion of the 95th Rifles, whose Baker rifles and considerable combat experience offered no advantage against American sharpshooters firing from behind cover. Captain William Surtees wrote, "I judged it next to a moral impossibility that an army of undisciplined and unmanageable peasants, however numerous, could for a moment withstand the attack of these troops who had overthrown the victorious legions of Bonaparte." Surtees found the one-sided slaughter "a just punishment for the contempt we entertained for our opponents."

Following this, the War of 1812's final great battle, again it was Europe that advanced the sharpshooter's evolution, this time with a series of technological developments.

RIFLE TECHNOLOGY ADVANCES

Europe's industrial revolution turned its irresistible momentum to rifles in the early 1800s, beginning with development of the percussion cap.

Similar to a modern rifle primer, the percussion cap was a tiny copper cylinder containing a sensitive explosive powder—fulminate of mercury, charcoal, chlorate of potash, and ground glass—that detonated when struck by a rifle's hammer. Invented by a Scottish Presbyterian minister, Alexander J. Forsyth, this tiny cap was slid atop a perforated nipple, which replaced the rifle's powder pan. Beneath the nipple, a small tube carried the hot flash into the rifle chamber. Instead of priming his pan, the rifleman simply slipped this metallic cap over the nipple.

Gone forever was the flintlock's old *click! . . . sssss! . . . boom!*—replaced by a nearly instantaneous *boom!* This improved marksmanship because it markedly reduced "lock time"—the time gap between pulling the trigger and a bullet exiting the muzzle—making a steady hold more easily accomplished. Further, British tests revealed that while a heavy trigger was needed to ensure sufficient sparks on a flintlock, on a percussion cap ignition system trigger pull could be lessened to 7 pounds with no decline in reliability, the lighter pull reducing the tendency to jerk a trigger.

Additionally, because the powder charge received a more consistent flash, muzzle velocity, too, became more consistent and, hence, the rifle more accurate. Due to the efficiency of that flash, a percussion rifle required a smaller powder charge, about 25 percent less than a flintlock.

Resistance to rain and dampness, as well as firing reliability, improved markedly, too. Before the British Army adopted the percussion cap in 1834, 6,000 rounds were fired in flintlock and percussion



Pill-size percussion caps contained an explosive compound that detonated when struck by the rifle hammer, shooting a flash into the chamber.

(Courtesy of Butch Holcombe, www.greybirdrelics.com.)



Slid over a rifle's metal nipple, the percussion cap represented a major improvement over the old flintlock's flint and powder pan ignition.

rifles. Some 922 times the flintlocks misfired or failed to fire, while percussion caps failed only 36 times. Seven years later, the U.S. Army, too, switched to the percussion system for the Model 1841, or Mississippi Rifle. Many existing Kentucky Long Rifles were altered from flintlock to percussion.

Adjustable Rear Sight

About the same time, another major improvement, the adjustable rear sight, first appeared on military weapons. Until the 1840s, long-range accuracy depended entirely on a shooter's skill and experience, for he zeroed his rifle at a specific distance—usually 100 yards—and after that had to employ holdover (Tennessee elevation) to hit targets at greater distances. The ability to precisely compensate for range required years of shooting experience.

Thanks to adjustable sights, a rifleman could now zero his rifle and then click or slide up its ladder-style elevation crossbar to aim directly on more distant targets with reasonable accuracy. The British Model 1851 Minie Rifle offered a graduated sight to 1,000 yards, while the 1853 Enfield went to 900 yards. Despite a degree of imprecision, compared to old-fashioned holdover, these sights leaped forward many a rifleman's abilities. Not only did the adjustable sight allow better aiming, but once a rifleman found the proper range to a row of approaching troops, he could shout his elevation to others and an entire squad or platoon could thereby fire with reasonable accuracy.

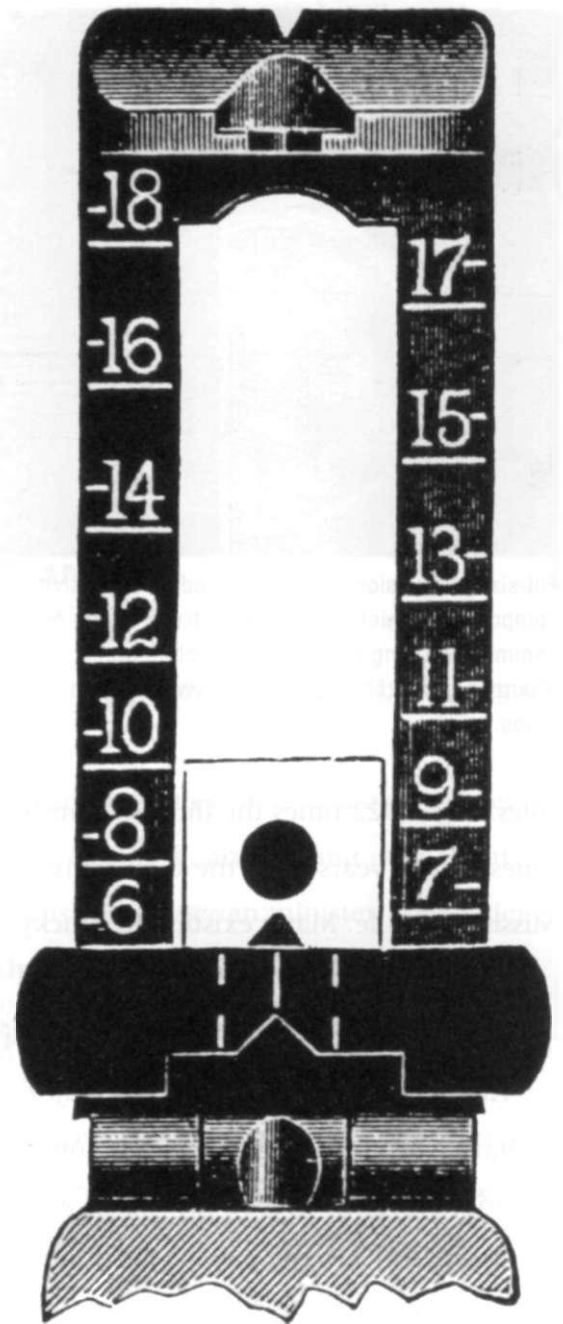
Minie Ball

The era's third major innovation was the Minie ball, a conical lead bullet designed by French Captain Claude-Etienne Minie in the 1840s and improved in Britain and America. Unlike a round lead ball, which required a strenuous effort to force down the bore and into the rifling, the pointed Minie projectile was slightly smaller than the bore because its thin hollow base expanded into the rifling when fired.

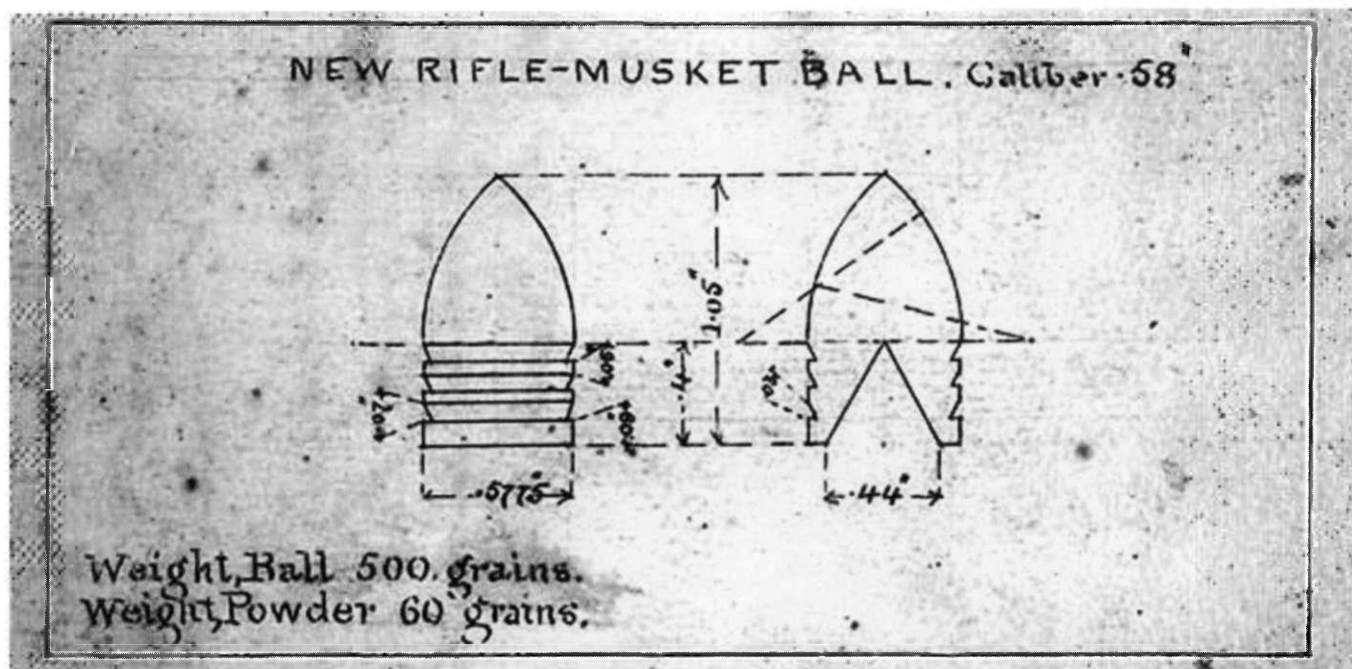
The Minie ball made reloading easier and faster. Gone was the need for patches because its three grooves held grease that both lubricated the bore and formed a gas check when fired. Factory-made, the Minie came wrapped in waterproof paper with a standard powder charge; the rifleman tore open the paper, poured the powder in his bore, rammed the Minie ball home, slid a percussion cap on the nipple, and he was ready to fire. With Minie balls, he could fire and reload two or three rounds per minute. *For the first time, riflemen had a firing rate equal to smoothbore shooters!*

Ballistically, too, the Minie outclassed the round lead ball. Its streamlined, conical shape reduced drag, allowing the bullet to better retain velocity, thus flattening its trajectory and increasing its foot-pounds of energy delivered at longer ranges. Overall, this nearly doubled a rifle's maximum range, both for accuracy and lethality. A test-firing in Britain demonstrated that a .577-caliber Minie ball at 800 yards could penetrate 4 inches of wood, an amazing performance.

The first military rifle to incorporate these cutting-edge features—the percussion cap, pointed Minie ball, and adjustable rear sight—was the British Pattern 1851, but its inaccuracy soon gave way to the much-superior Model 1853 Enfield, of .577 caliber. The first similar American arm,



This "ladder-style" adjustable military rifle sight, circa 1845, allowed elevation tuning to 1,800 yards.

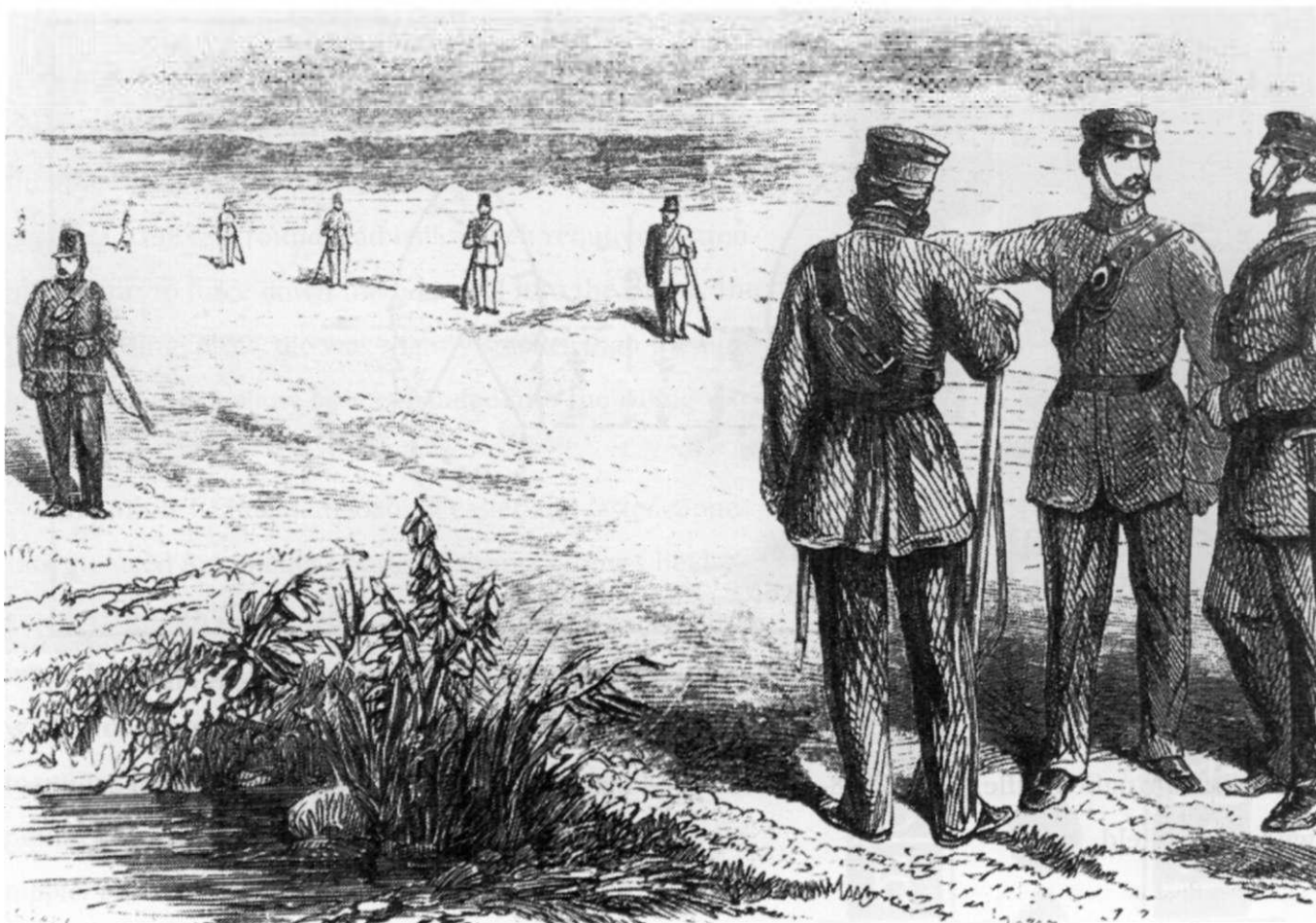


The final version of the U.S. .58-caliber Minie projectile, designed by James H. Burton at the Harpers Ferry Arsenal.

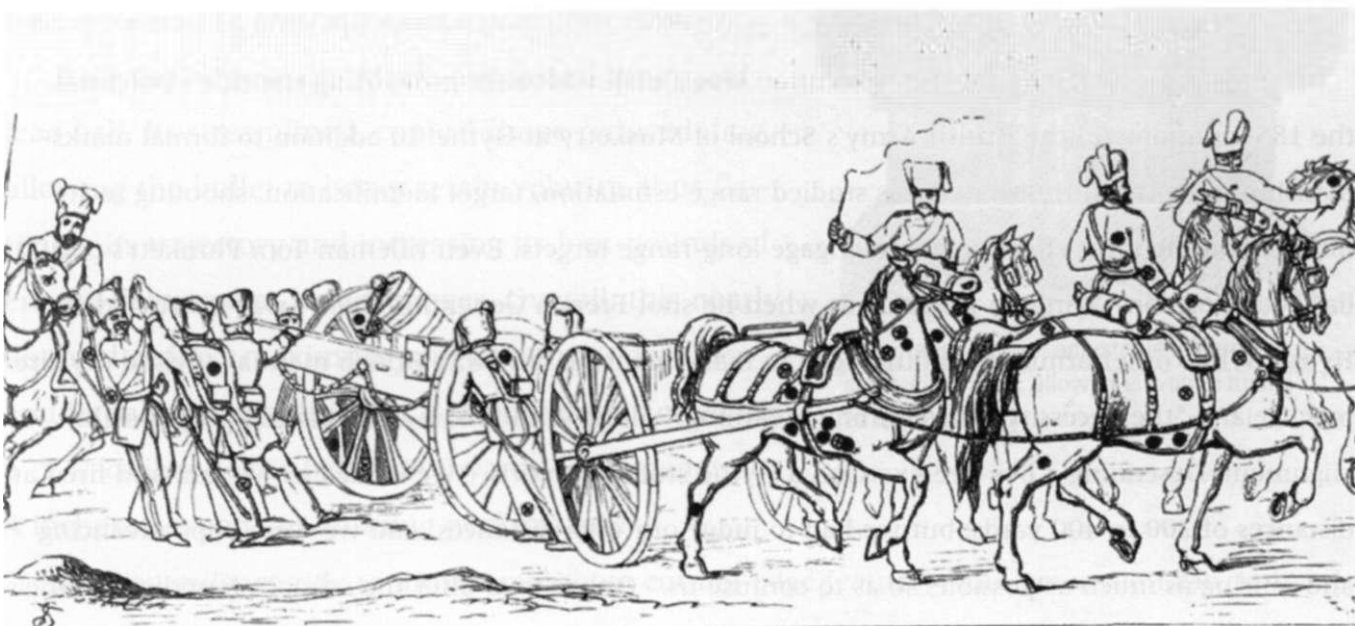
the 1861 Springfield rifle, fired a .58-caliber Minie ball, allowing ammunition interchangeability with the Enfield.

THE HYTHE SCHOOL AND THE CRIMEA

In England, paralleling this rifle evolution was a major advance in realizing the rifle's potential, the 1853 founding of the British Army's School of Musketry at Hythe. In addition to formal marksmanship instruction, Hythe students studied range estimation, target identification, shooting techniques, and the most effective fire to engage long-range targets. Even rifleman Tom Plunkett's peculiar body position—lying on his back, as when he shot French General Colbert—was instructed at Hythe. While other armies paid little heed to marksmanship, an 1854 British manual advised dry-fire practice and “the necessity of restraining breathing,” along with follow-through and proper sight alignment. Describing a live-fire exercise, a Hythe student reports, “We loaded as we ran, and fired at distances of 200 to 400 yards; but we had to judge our own distances, and we were kept advancing and retiring as much as possible, so as to confuse us.” Only a year after the school's founding, Hythe's graduates could put these lessons and their modern rifles to work, for again Britain was at war, this time on Russia's Crimean Peninsula.



British riflemen-students practice range estimation at the School of Musketry at Hythe, 1854.



During practice-firing at Hythe against this simulated crew, 60 British riflemen shot 120 rounds in two minutes at 610 yards, and then 150 rounds in three minutes at 810 yards, inflicting some 71 hits, to devastating effect.



Desperate Russian artillery crews at Sevastopol mounted protective mantelet screens above their guns to block British sharpshooter fire.

The Crimean War (1854–56) marks a major crossing in sharpshooting history because here, for the first time, instead of a handful of chosen men or specially trained units, *an entire army* was armed with rifles. Until now, any rifleman was at least a potential sharpshooter because—compared to smooth-bore musketmen—his rifle offered the capability to fire at greater range and with greater precision against discrete, selective targets. Since every British infantryman in the Crimea had a Brunswick or Pattern 1851 or Enfield rifle (the latter the more capable), sharpshooting began its path toward a more modern, sophisticated specialty.

On 16 October 1854, the British 1st Division ordered each 500-man rifle battalion to select 10 “good shots, volunteers preferred,” and a sergeant to be sharpshooters, commanded by a captain or lieutenant. Their duty: “to pick off the enemy’s artillerymen in their embrasures,” at distances of “400 to 500 yards of the enemy’s works.”

Operating as small bodies, the sharpshooters soon made their presence known. Count Frants Totleben, Russia’s chief engineer at Sevastopol, complained of “the enormous losses which the

A Crimean War Sharpshooter

No Crimean veteran better describes the sharpshooter's life there than Joseph Hicks of the British 67th Regiment of Foot:

"The 10 best shots of each Regiment was selected to form the sharpshooter [unit] and was stationed midway between the camp and Sebastopol. They had to proceed to their post just as day was breaking and retire to camp just as dusk was coming. Our young soldier, being the best shot in the Regiment, was one of those selected for that duty. These men had nothing to shelter them, only a few stones gathered and a heap about a yard high and had to lie all day behind there and watch the Russian gunners at the guns at Sebastopol and pick them off. They too had sharpshooters stationed on the walls and one day our hero thought he would test them so, putting his cap on his ramrod, he hoisted it above the heap of stones and . . . 2-3 bullets passed through the cap. The cannon shot and shell was constantly passing to and fro overhead and frequently bursting in the air. One morning, just at daylight, while proceeding to the post of duty, it was found the enemy had come and taken possession of the sharpshooter's position, but was at once driven out and as they retired, our men had a nice bit of sport shooting these Russians like rabbits as they were running away, about two-thirds of them was killed. They did not molest the British again in that place."

enemy's riflemen inflicted on the Russian artillery. . . . It was more the fire of rifled small arms than that of the artillery . . . which reached our artillerymen, of which the greater part were killed and wounded." Lieutenant General Kiryakov, commanding the Russian 17th Division, could only watch as his smoothbore-armed men fled the battlefield at Alma. "Our weapons are such that only rifles could make this an equal fight," he snapped. "And those we don't have!"

The Czar's army included some sharpshooters—either *zastrelshchiki* (skirmishing sharpshooters), *shtutserniki* (selected riflemen), or *shtutsernye* (riflemen)—but neither their training nor their armament was on a par with that of the British. Depending on the unit, Russian infantry battalions contained mostly smoothbore-armed soldiers and just 24 or 48 rifle-armed soldiers; however, riflemen were issued only 10 rounds per man annually for practice, which was boosted to 15 rounds in 1853. Their rifles mostly were old French Liege .70-caliber weapons, whose slow, heavy projectile lacked the range or accuracy to challenge the faster .577-caliber British Enfield. The most effective Russian sharpshooters were Finnish hunters and trappers who, like American frontiersmen, had grown up firing rifles.

Perhaps it was a Finnish sharpshooter who fired one of the more amazing shots in the siege. "Nothing could be seen of these two [British soldiers] above the parapets except perhaps the moving of their forage caps," reported a Crimean veteran, "but so judicious was the judgment and so excellent the aim of a Russian rifleman, that a shot entered the loop-hole, passed through the head of the sergeant and the throat of the private, killing them both."

For British sharpshooters, the greatest target to materialize at Sevastopol was Admiral Pavel Nakhimov, commander of the port and the city's military governor who'd organized its complex defense. On 28 June 1855, while Nakhimov inspected forward defensive positions on Malakhov Hill, a lone shot rang out from the British lines, striking and killing the much-decorated admiral. The sharpshooter who made that shot never laid claim to it.

Britain's most celebrated Crimean sharpshooter—awarded the Victoria Cross—was Captain Gerald L. Goodlake. On 28 October 1854, he led a party of 30 sharpshooters at the Battle of Inkerman, fighting off 500 Russian marines, killing 38, including one officer, and taking three prisoners. "We go out to shoot Russians and pickets," he described in a letter to his family. "I killed 5 men, one at 300 yards through the head and one officer beating on his men at 30 yards. Most exciting. I and a sergeant were nearly caught in a cave but we made a bolt



Sergeant George Fox, a British sharpshooter at Sevastopol.

for it and got off with a bullet through my coat and he shot in the arm."

Hardly less accomplished was Goodlake's sharpshooter sergeant, Donald Macbeath of the Scots Fusilier Guards, famed for his courage and shooting skill. During the 42 days Macbeath served alongside Goodlake, his uniform was penetrated 14 times by Russian bullets, but he was never wounded. Awarded the Distinguished Conduct Medal, he eventually

retired as a sergeant major and was honored to escort Queen Victoria and Prince Albert to social occasions, hailed in the queen's diary as a "celebrated marksman."

Another distinguished Scotsman-sharpshooter was Private Roderick McGregor of the Rifle Brigade, awarded the Victoria Cross for his heroism and marksmanship in three engagements. On 22 April 1855, McGregor hunted down and killed several Russians who had killed a British soldier fetching water. Along with sharpshooting from the forward-most trenches around Sevastopol, he also



The greatest target to materialize at Sevastopol was Russian Admiral Pavel Nakhimov, who was slain by a British sharpshooter.



Captain Gerald Goodlake, recipient of the Victoria Cross, was Britain's most accomplished Crimean War sharpshooter.

single-handedly cleaned out a Russian rifle pit. One of McGregor's Rifle Brigade cohorts, a rifleman named Herbert, was credited with an extreme-range shot that dropped a Cossack cavalry officer from his horse at an estimated 1,300 yards. Herbert, however, thought the distance closer to 1,000 yards.

British commander Lord Raglan claimed that a Rifle Brigade officer, "Lieutenant Godfrey," had wiped out two Russian artillery crews at 600 yards. Godfrey crept forward and then, "having his men hand him their Enfield rifles in turn, actually picked off the artillerymen, one after another, til there were not enough left to serve the guns."

Henry Tryon, another Rifle Brigade lieutenant, considered one of the war's finest shots, was alleged to have killed or wounded more than 100 Russians. At the Battle of Inkerman, he had two men take turns loading rifles for him so that in a single day, it was said, he shot 30 Russians and wounded many others. Tryon's good fortune ran out, however, on 20 November 1854, when the gallant young officer was killed while attacking Russian rifle pits.

As Tryon's experience demonstrates, sharpshooting in the Crimea was a dangerous business. Captain Goodlake, who began with a detachment of 30 sharpshooters in late October 1854, only two months later reported, "Sharpshooting stopped, too few men available." By then he'd suffered 13

men killed, five wounded, and one transferred, leaving him but 11 men. Despite these losses, Goodlake remained a firm advocate of sharpshooting, declaring, "I am sure we would have got on much better if we'd had whole battalions of sharpshooters, instead of 30 or 40 men."

Goodlake's experience and the Crimean War marked an important milestone in the evolution of rifles and riflemen, forever casting into the dustbin of history the smoothbore musket and its advocates. Further, with one army—the British—armed solely with rifles, the Crimean experience inspired a distinction between riflemen and

sharpshooters, though a clear definition and doctrine remained to be developed. What, then, would result when entire armies—all the con-



Lieutenant Henry Tryon, one of the Rifle Brigade's most accomplished marksmen, falls in battle, 20 November 1854.

tending forces in a major conflict—were armed with rifles? That was about to happen, and on an immense scale.

The Jacob's Anti-Materiel Rifle



The double-barreled Jacob's rifle, designed expressly for detonating artillery caissons at great range.

By the early 1850s, carefully aimed rifle fire was well established for the counterartillery role of killing crewmen or forcing them from their guns. To British Brigadier General John Jacob, however, it made more sense to directly engage the materiel target—that is, to fire into the gunpowder-laden caisson parked beside the artillery piece and thus destroy gun, crew, horses, and all with one well-placed shot.

His idea became the Jacob's rifle, a 9 1/2-pound double-barrel firing its own "32-gauge" (.53-caliber) pointed bullets, stabilized by four finlike studs that rode the rifling. It was aimed using three flip-up rear sight blades for 100, 200, and 300 yards and a 5 1/8-inch, ladder-style sight adjustable to 2,000 yards. Jacob's heavy slug potentially packed enough kinetic energy to shock-detonate a caisson containing hundreds of pounds of sensitive gunpowder. However, he took it a step further by drilling out the bullet's tip and inserting a copper cylinder packed with an explosive compound.

On 23 August 1856, in Kurrachee, India, Brigadier General Jacob demonstrated his double-barreled rifle, successfully hitting at 1,200 yards a 4 x 2-foot cart holding 100 pounds of gunpowder "with the most brilliant effect." A month later he did the same at 1,800 yards, this time against a 10-foot square target. His rifle was not particularly accurate—it sometimes required nine rounds to score a hit—but the exploding projectiles pinpointed the misses, allowing exact adjustment until the target was struck.

During the Indian Sepoy Mutiny of 1857–59, British soldiers firing a Jacob's rifle reportedly hit and destroyed an insurgent caisson. And during the Crimean War, a British officer, Lieutenant Malcolm Green, visiting his brother at Sevastopol, brought along a surprise—a Jacob's rifle, complete with its exotic ammunition. "He went to the trenches occupied by the French which faced Green Hill, a position held by the



The unique Jacob's bullet with explosive copper inserts. Note the finlike protrusions that rode rifling to impart spin. (Photo from the Military and Historical Image Bank.)



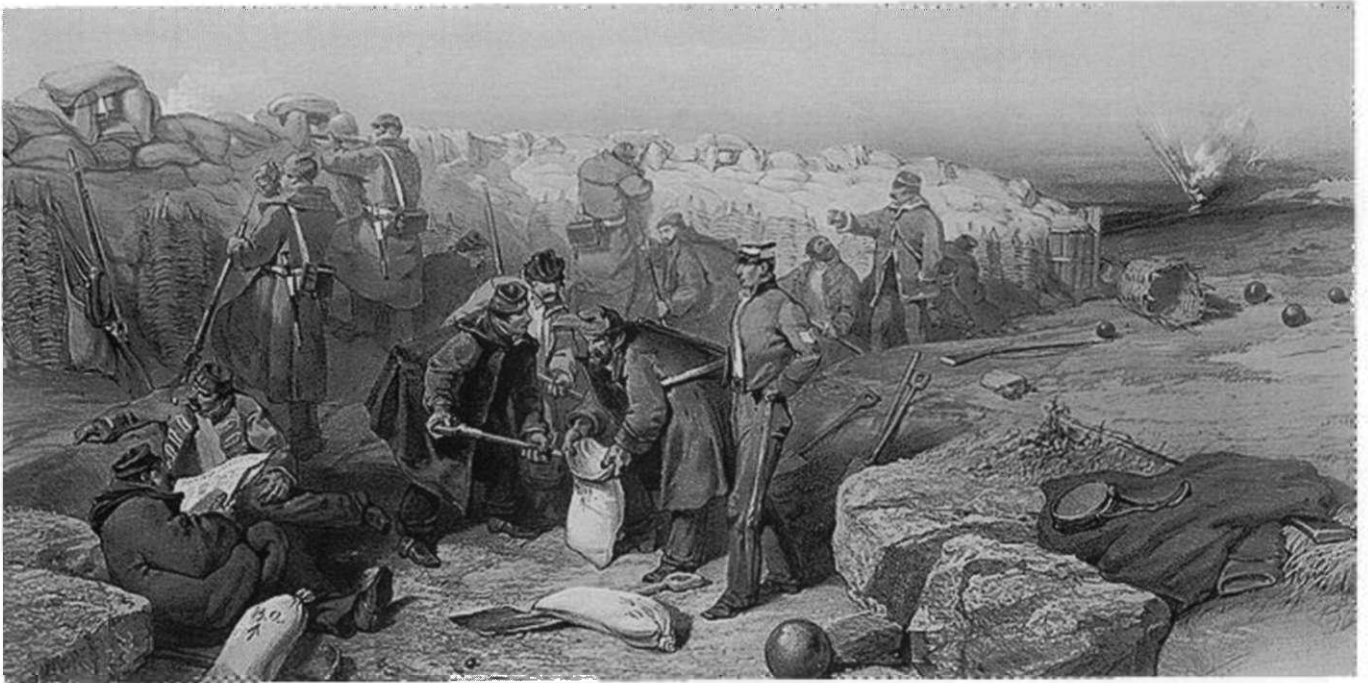
An artillery position blasted to bits, the intended effect of the Jacob's rifle's exploding projectile.

Russians," an account reports, "and at a distance of about 800 yards he opened fire with his rifle on a gun in the battery which had been giving much trouble to the French. In a very short time his fire caused the gun to be withdrawn from the embrasure."

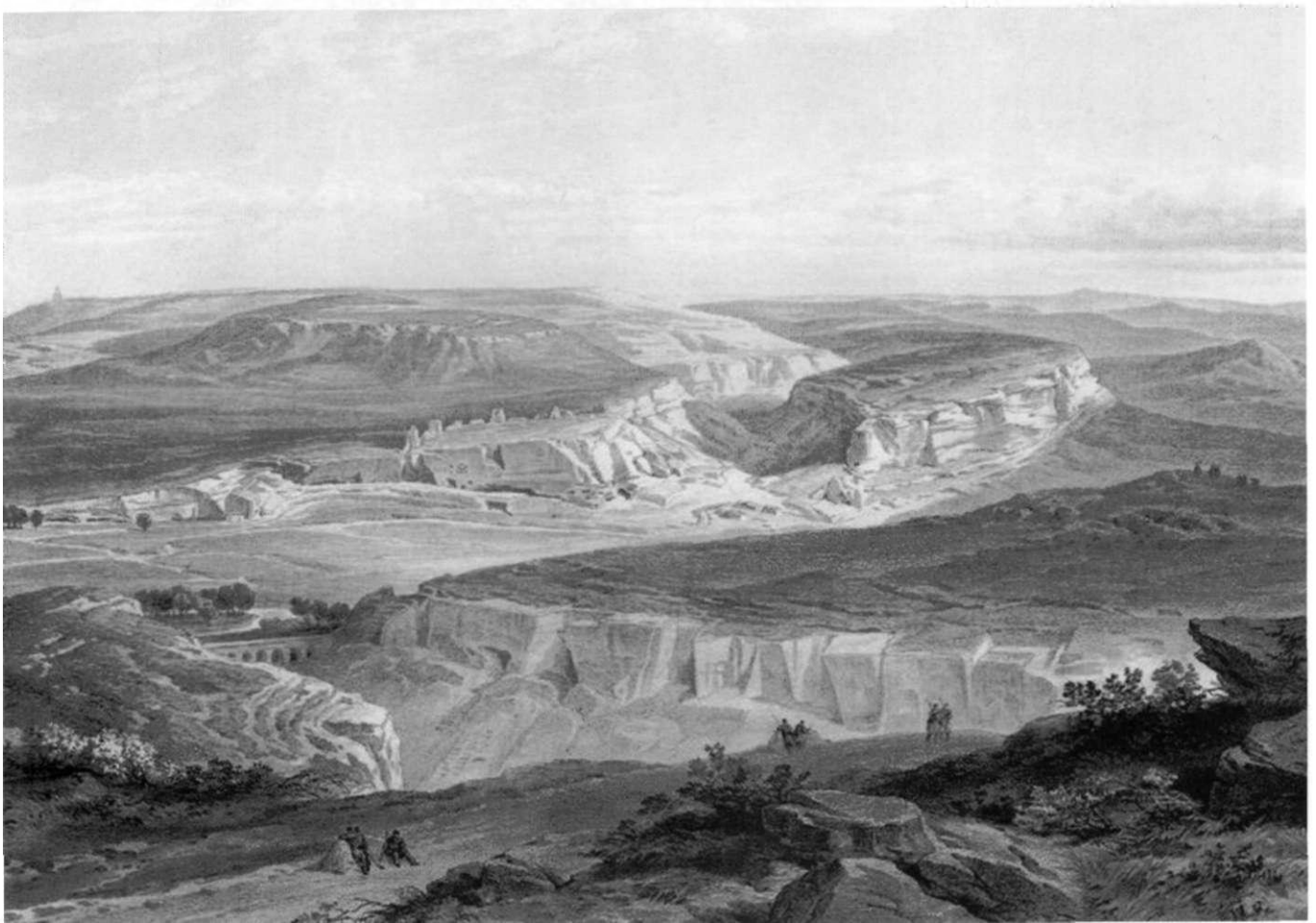
At the receiving end of such fire, a Russian officer, Captain Naum Gorbunov, reported, "[T]he artillerymen could not name them, these bullets . . . aimed at our artillery's cartridge boxes but were in no way meant for us." Apparently some rounds connected, for he adds, "[A]fter a few seconds, we learned from experience the significance of these 'thimbles.'"

During the American Civil War, Confederate troops at Vicksburg fired similar exploding bullets at Union soldiers, which enraged General Ulysses S. Grant, who declared, "Their use is barbarous because they produced increased suffering without any increased advantage to those using them."

Such sentiment proved the undoing of the Jacob's rifle and its unusual projectiles, with the 1868 Convention of St. Petersburg outlawing explosive rifle bullets.



A Russian rifle pit in the Crimea. Note the special parapets for sharpshooters.



Vast open areas around Inkerman lent themselves to sharpshooter fire.

PART

2 THE AMERICAN CIVIL WAR



Riflemen, ATTENTION !

A COMPANY OF ONE HUNDRED MEN to be selected from the
BEST RIFLE SHOTS,

In the State, is to be raised to act as a **COMPANY OF SHARP
SHOOTERS** through the War. Each man will be entitled to

A BOUNTY OF \$22,00,

When mustered into the service of the United States, and

100,00 DOLLARS

at the close of the War, in addition to his regular pay.

No man will be accepted or mustered into service who is not an active and able bodied man, and who cannot when firing at a rest at a distance of two hundred yards, put ten consecutive shots into a target the average distance not to exceed five inches from the centre of the bull's eye to the centre of the bull ; and all candidates will have to pass such an examination as to satisfy the recruiting officers of their fitness for enlistment in this corps.

Recruits having Rifles to which they are accustomed are requested to bring them to the place of rendezvous.

Recruits will be received by
JAMES D. FESSENDEN,
Adams Block, No. 23, Market Square, PORTLAND, Maine.

Sept. 10, 1861.

Englewood Register Office - 25 St. Stephen, Maine.

WAR OF THE SHARPSHOOTERS

The American Civil War stands as a demarcation, a crossing point from wars of old to wars of the new mechanical age. For the first time, whole armies could be moved by steamboat and supplied by railroad; ironclad gunboats patrolled hostile rivers and shores; telegraphs instantly dispatched orders and intelligence; and men were shot down by telescopically sighted rifles so far away that their comrades never heard the muzzle report.

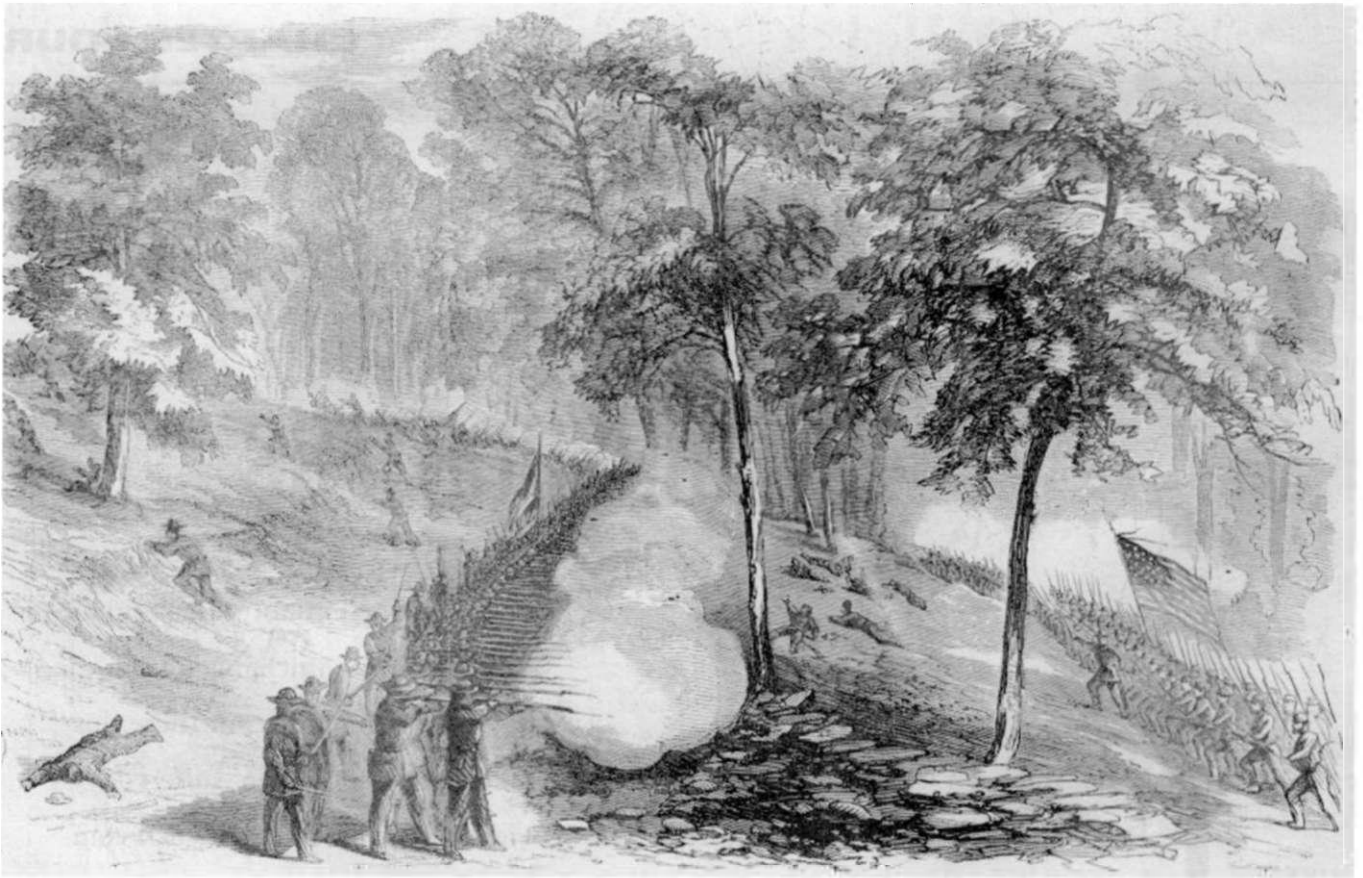
This was also the world's first conflict with entire armies of contending riflemen. Unappreciative of rifle capabilities—their improved accuracy, range, and rate of fire—officers on both

sides deployed infantry in shoulder-to-shoulder rows, unchanged from the days of Washington. For these mistakes, the leaders, too, suffered.

Fighting well forward in such compressed battlefields, never before or since would so many officers—especially general officers—fall victim to the well-placed shots of sharpshooters.

At the beginning of the war, it was uncertain what exactly constituted a Civil War sharpshooter. Classically, any rifleman fit the definition by virtue of his rifle's range exceeding that of the smoothbore musket and his ability to engage targets selectively. But now, with all infantrymen armed with rifles, defining a sharpshooter solely by his armament had become moot.

This was equally true for unit design-



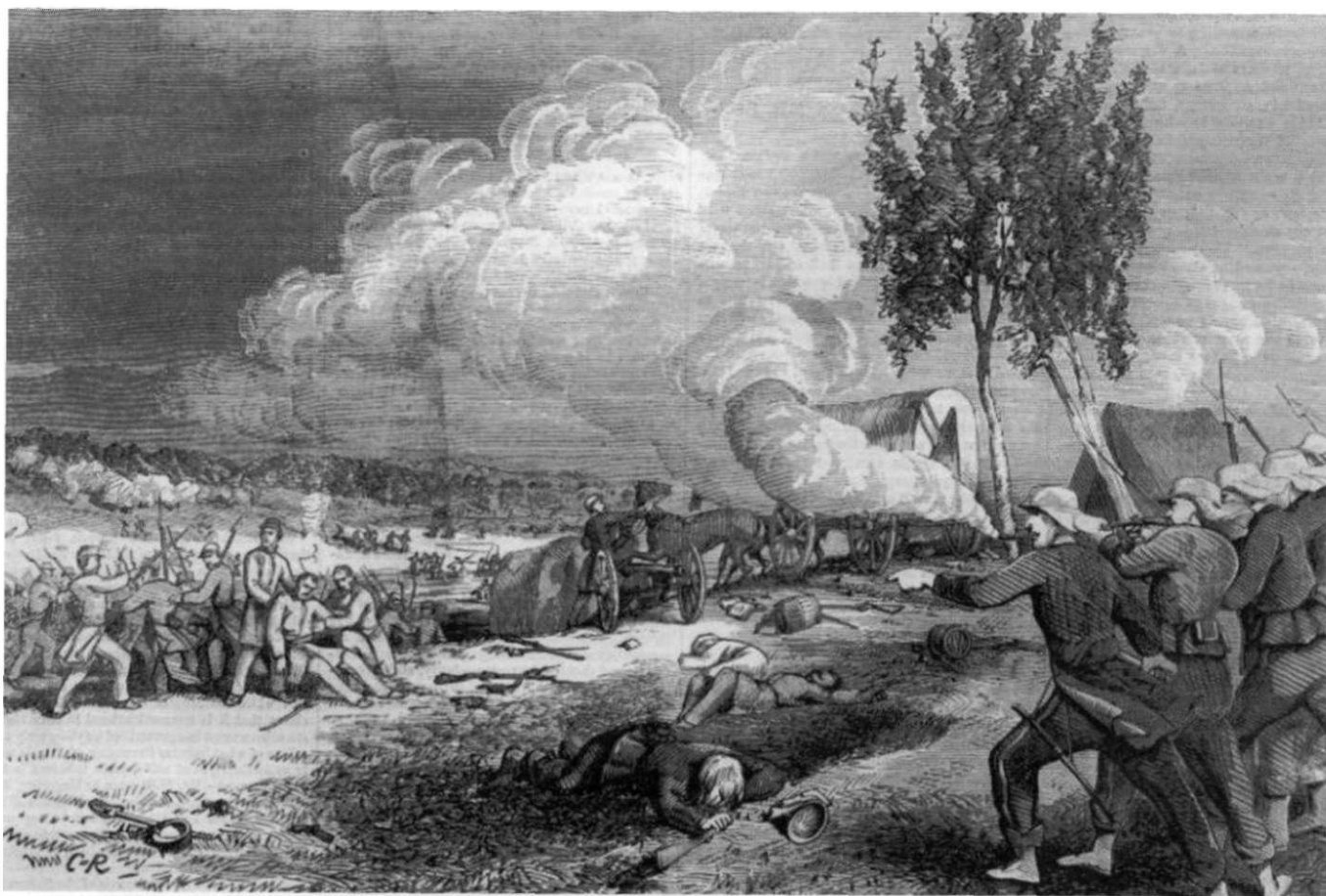
Despite their rifles' considerable range, Civil War infantry often fought in shoulder-to-shoulder rows, little changed from the Revolutionary War.

nations. Alleged sharpshooter units popped up like mushrooms after a summer rain: scanning Union and Confederate records yields nearly 50 organizations of varying sizes—from independent companies to entire regiments—called “sharpshooters.” Most such units had no selection criteria beyond the soldier’s readiness to enlist. Some units assumed this label from a sense of pride, others as a recruiting tool, and only a few as an accurate indicator of function, capabilities, and mission.

In the case of South Carolina’s “Palmetto Sharpshooters,” although originally mustered as a genuine sharpshooter unit, a senior officer later wrote that “the exigencies of the army prevented the consummation of this design,” and they were employed as conventional infantry and rarely as sharpshooters. The Union Army, too, had problems, exemplified by the attempt to form a sharpshooter unit to help defend Morris Island, South Carolina. Instead of receiving the master riflemen that local units were ordered to provide him, the unit’s commander, Captain T.B. Brooks, observed, “The present so-called sharpshooters are inefficient. First, they are not good shots; second, their arms are not in good condition; third, they are not in sufficient numbers; and fourth, they are not properly officered.”

Even genuine sharpshooters often did not belong to designated sharpshooter units. Many infantry regiments pulled respected marksmen from the ranks—akin to “chosen riflemen” of earlier wars or “designated riflemen” of the 20th century—and then employed them as skirmishers, scouts, pickets, and sharpshooters within their regiment. Some such sharpshooter detachments were permanent, others only manned when a specific tactical need arose. It was how well these men performed—*how well they shot*—that made them sharpshooters. When the Union commander at the Battle of Cheat Mountain, West Virginia, found a need for sharpshooters, he pooled the best riflemen from seven Indiana and Ohio infantry regiments into a temporary detachment whose victims included a senior officer on General Robert E. Lee’s staff. Not only was Lieutenant Colonel John A. Washington so well regarded that he shared a tent with Lee (who grieved his loss), but he was George Washington’s great-great-grand nephew and the last family member to own the Mount Vernon estate.

Similarly, it was a temporarily appointed sharpshooter who killed Confederate General Robert S. Garnett on 13 July 1861 at Corrick’s Ford, Virginia. A former commandant of cadets at West Point



The first general officer from either side to die in the Civil War, Confederate General Robert Garnett is shot by a sharpshooter, 13 July 1861.

and the man who'd designed the Great Seal of the State of California, Garnett was the first general officer of either side to die, and much was made of it in newspapers.

In both armies, there was little formal marksmanship training—and absolutely no sharpshooter training—with higher priority accorded to properly reloading “by the numbers” and maneuvering on command. A rifleman’s shooting skills most often had been acquired before he enlisted.

And when it came to weapons, by far, most sharpshooters fired their regular assigned 1861 Springfield or 1853 Enfield rifles or their clones, accurate to 250 yards against individual targets and perhaps 500 yards in the hands of a skilled marksman firing prone or from support.

Yet there were a select few who fit the modern definition of a sharpshooter and met the highest marksmanship standards. These were sharpshooters in the truest sense.

TRUE SHARPSHOOTERS

In the war’s earliest days, a disparity already was realized in the north. “However imperfect and rude their equipment and materiel,” observed a Union officer, “man for man, [Southerners] were the superiors of their northern antagonists in the use of arms. . . . Indeed, there were in many regiments in the northern armies men who had never even fired a gun” prior to enlistment.

While this was entirely correct, an accomplished New York businessman equally realized that throughout the North were thousands of men like himself, who shot rifles competitively and could match or even outshoot the Confederacy’s finest riflemen. Hiram Berdan was so certain of it that he contacted President Abraham Lincoln directly and offered to raise an entire regiment of such advanced marksmen. After the poor showing of Union forces in the war’s initial clashes, Berdan traveled to Washington in June 1861 and soon obtained endorsements from President Lincoln and Secretary of War Simon Cameron. Thus, on 15 June 1861, the Union Army’s commanding general authorized the newly appointed Colonel Hiram Berdan to raise the 1st U.S. Sharpshooter Regiment.

In the tradition of Revolutionary War sharpshooters, Berdan’s recruits were invited to bring along their own target-grade rifles, for which the federal government would reimburse them—and they’d certainly need them. Unlike many alleged “sharpshooters,” these candidates had to pass a challenging marksmanship test to join the 1st Sharpshooter Regiment. All across the North—New York, Michigan, New Hampshire, Vermont, Wisconsin, Maine, Minnesota, and Pennsylvania—state governors agreed

Berdan the Sharpshooter

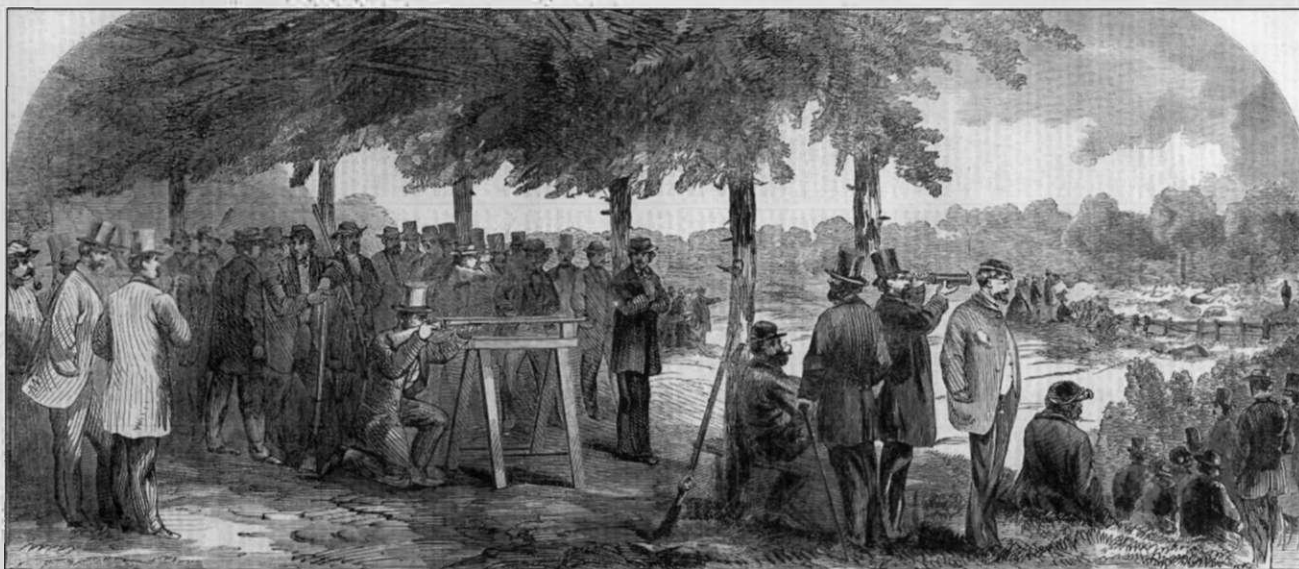
Flamboyant, proud, urbane, and technologically brilliant, Hiram Berdan was the driving force that founded the Union Army's sharpshooter regiments. A man of considerable wealth yielded by a variety of mechanical inventions, Berdan had been a competitive rifleman since the early 1850s. Favoring heavy-barreled match rifles with scopes or precise globe sights, he soon earned fame as the nation's top rifle shot.

This combination of wealth and prestige gained Berdan the connections to go directly to President Abraham Lincoln and urge creation of a sharpshooting unit. His personal shooting abilities, documented in several accounts, were nothing short of superb. In October 1861, while President Lincoln and General George McClellan watched, Berdan fired a string of shots at 600 yards, all of which hit the head of a Jefferson Davis effigy target. One shot, which he called when taunted by Assistant Secretary of War Thomas Scott, unerringly struck the target's right eye, evoking laughter from President Lincoln.



Colonel Hiram Berdan, founder of the Union Army's sharpshooter regiments.

Although wearing a colonel's uniform and, as the Army of the Potomac's Chief of Sharpshooters, commanding two sharpshooter regiments, underneath it all Berdan remained a civilian lacking in military training and experience. Fortunately, most often he deferred tactical decisions to his qualified subordinates and occupied himself in a military version of "office politics," at which he was fairly adept. Despite criticisms and backbiting from a variety of officers, he left active duty in 1864 with his reputation intact and focused on an assortment of military inventions, including the metallic cartridge primer that bears his name to this day.



Colonel Berdan fires a long-range demonstration early in 1861.

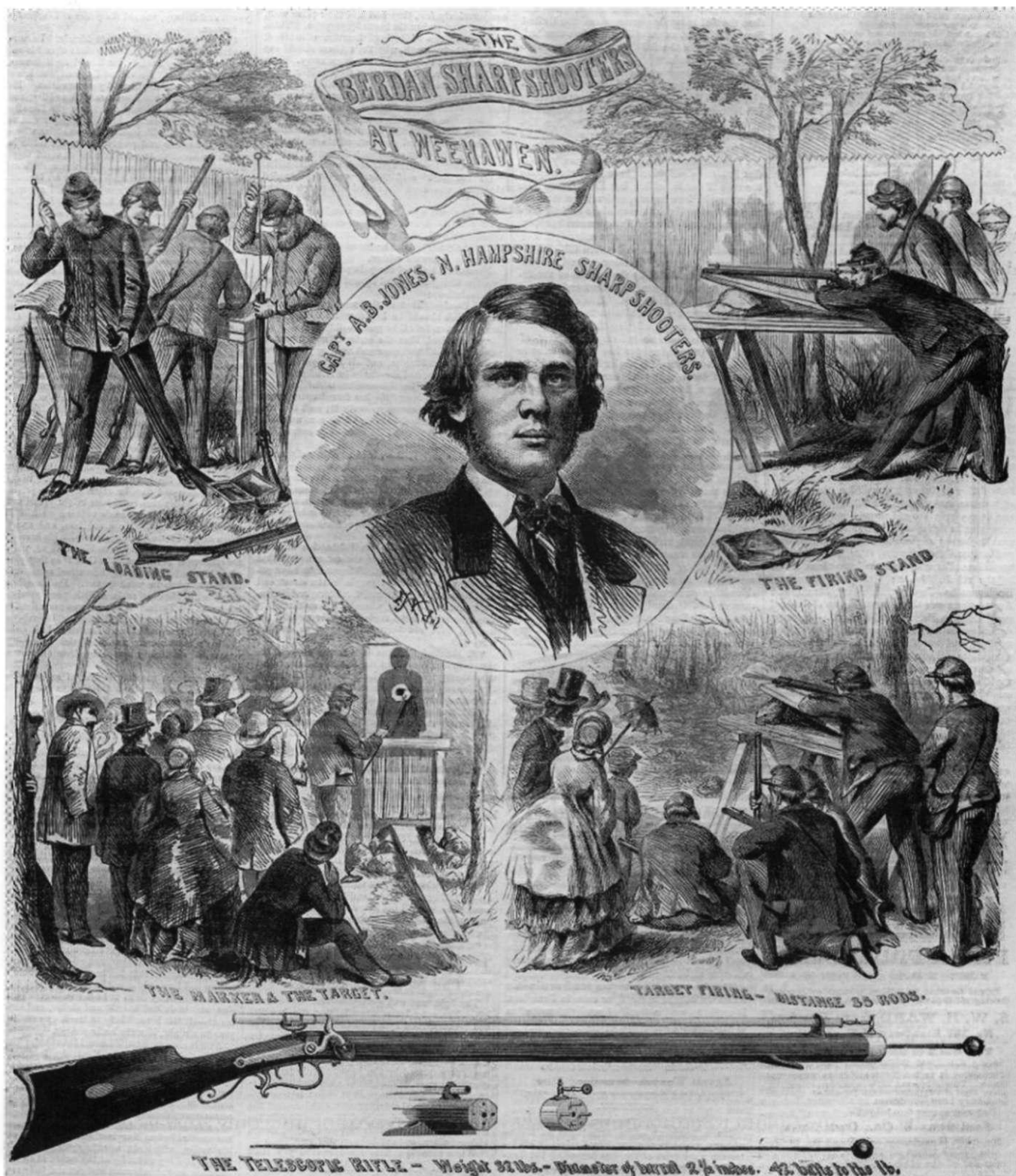


Colonel Hiram Berdan, the Army of the Potomac's Chief of Sharpshooters, and the popular sharpshooter "California Joe."
(Courtesy of the Vermont Historical Society.)

to contribute companies of sharpshooters. Bold posters announced local shooting tryouts, and soon the Union's best rifle shots were firing Berdan's test, which required "a string of 10 shots at a distance of 200 yards, the aggregate measurement of which should not exceed 50 inches." In other words, the rifleman had to place each shot within 5 inches of the target's dead center. This was no simple feat.

Vermont rifleman Charles Fairbanks well expressed the pressure he felt:

"It was with fear and almost trembling that I took the rifle in hand to determine whether or not I was fit for a sharpshooter. There was a large crowd of townspeople present, who seemed to be about evenly divided in my favor of my going to war, but after making the first shot at the ten-inch ring target, there was a cheer from the spectators, for I had put a bullet nearly in the center of the bulls eye, which was about two inches in diameter. The remaining nine shots were put inside the ring about as per sketch with a cheer from the crowd after each shot."



The front page of *Harper's Weekly*, 5 October 1861, depicts Berdan's Sharpshooters training at Weehawen, New Jersey.



A squad from the 2nd U.S. Sharpshooter Regiment with Colt rifles. They are (left to right): Private Charles Applin, Private Isaac Farnum, Sergeant Horace Caldwell, Private Amos Abbott, Private William Beard, Private William Spread, and Private Cyrus Farnum.

Reflecting the patriotic sentiment of the times, so many fine riflemen like Fairbanks came forward and passed Berdan's test that he obtained authority to raise a second unit, the 2nd U.S. Sharpshooter Regiment.

PREPARING FOR WAR

Soon after Berdan's volunteers assembled and began training near Washington, the impracticality of lugging into combat 30-pound, heavy-barreled rifles with delicate scopes became apparent. The sharpshooter regiments needed a more-rugged, more easily wielded weapon. Always an advocate of emerging technology, Colonel Berdan initially believed that a repeating rifle was ideal—especially in the hands of superb marksmen, who could make each shot count. Thus, their heavy "telescope" rifles were collected and stored in the wagons that followed the units, available when needed, while day-to-day armament became a five-shot, .56-caliber Colt revolving rifle. Although not a tack-driver, a repeating rifle in 1861 posed a significant advantage over single-shot Confederate rifles.

"California Joe"

In a unit composed of many distinct characters, a Berdan Sharpshooter really had to stand out to be a prominent personality. Such was the 1st Regiment's Company C's Truman Head, popularly known as "California Joe" or simply "Californey."

One of Berdan's oldest men at age 52, California Joe was soft spoken, with "an eye as keen as a hawk." A fellow sharpshooter called him "one of the mildest [and] gentlest of men" and "entirely free from brag and bluster." From his days in the California mountains, he sported "an endowment of hair and whiskers Reuben would have liked for a patriarchal portrait."

Born in Ostego, New York, Head got his nickname from being a forty-niner gold prospector. He listed his occupation as "hunter," referring to his success at bagging grizzly bears.

Head carried his own privately purchased Sharps target rifle, the only one in the regiment until June 1862, when the entire unit received Sharps rifles. Quite likely it was Head who persuaded Colonel Berdan that this was the regiment's ideal weapon. Often, though, he fired a heavy-barreled target rifle when shooting beyond 500 yards.

"His unerring rifle has made many a rebel bite the dust," observed *Harper's*.

For instance, when a Rebel sharpshooter firing from inside a brick chimney at 500 yards shot several Union soldiers, California Joe was called in. He arrived with an octagon-barreled target rifle with a telescopic sight. His first three shots chipped off pieces of brick around the narrow firing port, but the fourth round connected. When later that position was captured, it was found the Rebel sharpshooter "had been shot between the eyes."



"WATCHIN' FOR A REB." Berdan Sharpshooter Truman "California Joe" Head demonstrates hiding from enemy observation. (Courtesy of the Vermont Historical Society.)

Again it was a heavy, 32-pound target rifle that he used in another recorded encounter, this time against a Confederate artillery position. Seeing his crews hesitating to man the guns, a Rebel officer jumped atop the parapet and waved his sword to come forward and load. That's where Californey's shot caught him, sending the artillerymen scrambling back to cover. "It was a fine shot," said a witness, "for the man must have been a full half-mile away," or about 800 yards.

California Joe dodged more than a few bullets himself, his closest call coming at Malvern Hill, Virginia, in July 1862, when a Rebel sharpshooter's bullet hit his Sharps rifle's band and fragmented into pieces that wounded his nose and cheek. Though he fully recovered, by the fall of 1862 California Joe's age caught up with him. His eyes failing him, he came down with jaundice and was hospitalized. Afterward he was discharged due to a permanent disability.

He returned to California and spent the rest of his days as a U.S. Customs Inspector in San Francisco. When he passed away in 1888, a monument was erected to him there.

Distinctive Insignia

Members of the 1st and 2nd U.S.

Sharpshooter Regiments wore distinctive green uniforms, the only Union force so attired and a source of considerable pride. Additionally, their officers' hats bore badges with the unit's emblazoned silver initials, USSS, for United States Sharp Shooters.

A few other (extremely rare) Civil War sharpshooter insignias exist. When New York's 56th Volunteer Infantry Regiment mustered in 1861, its organization included one sharpshooter element from Sullivan County, designated as Company L. "The members were selected for their superior marksmanship," a regimental history notes, "all being experienced hunters and woodsmen and experts with the rifle." Early in the war, these prized marksmen wore a 6-inch green felt shield on their right breast, with an "X" in the center.



Officers of the 1st and 2nd U.S. Sharpshooter Regiments wore this unique hat badge.

At least one Confederate sharpshooter unit also wore unique insignia. According to Joe Long, Curator of History at South Carolina's Confederate Relic Room and Museum, Sergeant W.T. McGill of Dunlop's Sharpshooter Battalion reported his unit's sharpshooters "were distinguished by a badge consisting of a red band running diagonally across the left elbow of the coat sleeve with a red star just above the band." Not only did this identify the soldier as an outstanding marksman, but that insignia "would pass [allow] the Sharp Shooter anywhere." Thus, he could roam his regiment's lines and forward positions in search of shooting opportunities.

Next, Berdan obtained for his men uniforms that were identical to other Union soldiers' blue garb except for the color—*green*. Not only was this a sharpshooter's symbol of pride and a continuation of the rifleman's green hunting shirts under George Washington, but it was also a useful form of camouflage that undoubtedly saved many sharpshooters' lives.

RECRUITS WANTED

FOR THE

1st REGIMENT OF U. S. SHARP-SHOOTERS!

The undersigned will be at

On **1862**,
for the purpose of enlisting men for the First Regiment of United
States Sharp-Shooters, now at Washington. None but good able-bodied men will be received.

The Regiment is to be armed with Sharpe's improved Target
Rifles, which are to be furnished the Regiment by the 30th inst.

Headquarters at the City of Lansing, two doors below Bailey's Bank, on Michigan Avenue.

Recruits will be received for about **THIRTY DAYS** only.

J. H. BAKER,

1st Lieut. Co. C, 1st Regt. U. S. S. S.

Lansing, February 10th, 1862.

Riflemen, ATTENTION!

A COMPANY OF ONE HUNDRED MEN to be selected from the

BEST RIFLE SHOTS,

In the State, is to be raised to act as a **COMPANY OF SHARP
SHOOTERS** through the War. Each man will be entitled to

A BOUNTY OF \$22,00,

When mustered into the service of the United States, and

100,00 DOLLARS

at the close of the War, in addition to his regular pay.

No man will be accepted or mustered into service who is not an
active and able bodied man, and who cannot when firing at a rest at a
distance of two hundred yards, put ten consecutive shots into a target
the average distance not to exceed five inches from the centre of the
bull's eye to the centre of the bull; and all candidates will have to pass
such an examination as to satisfy the recruiting officer of their fitness
for enlistment in this corps.

Recruits having Rifles to which they are accustomed are requested
to bring them to the place of rendezvous.

Recruits will be received by **JAMES D. FESSENDEN,**
Adams Block, No. 23, Market Square, **PORTLAND, Maine.**

Sept. 16, 1861.

All across the North
in 1861, the call
went out for sharp-
shooters. Even
German-American
marksmen were
urged to try out for
Indiana's Turner
Sharpshooter
Company (right).

Sigels Scharfschützen!

Drittes Regiment, Spinolas Empire Brigade, Oberst J. K. Braulid.



Aufgepaßt Deutsche!!

Eilt schnell, bevor es zu spät ist!

Nur noch bis zum 1. September

150 Dollars Bountly,

wovon ein Theil sofort nach Einschreibung.

Deshalb schreibe sich Jeder dieser and lauter jungen Leuten bestehende Compagnie an.

Berpflegung und Unterstützung der Familien sofort.

13 Dollars Vohnung bei Einmusterung der Compagnie.

D. von Schoening, Capt.,

Heinrich Merz, Erster Lieut.

aupt-Office: No. 1272 Broadway.

Zweig-Officen: 9 Bowite Avenue.

45 Adpte Avenue.

1ST REGIMENT

BERDAN'S U. S.

SHARPSHOOTERS!

Lieut. Winthrop, de-
tailed from Washington to recruit for
this Regiment will

"SHOOT IN"

all who may apply, this day, in the
field in rear of residence of S. Arnold
Esq.

Shooting to commence at 8 o'clock,
A. M. and at 2 o'clock, P. M.
Saturday, 26, Oct., 1861.

TO THE SHARP SHOOTERS OF WINDHAM COUNTY!

Your Country Calls!! Will you Respond?

CAPT. WESTON has been authorized to raise a Company
of Green Mountain Boys for Col. Berdan's Regiment of Sharp Shooters
which has been accepted by the War Department to serve for three years,
or during the war. Capt. Weston desires to have Windham County rep-
resented in his Company.

The Sharp Shooters of Windham County and vicinity
who are willing to serve their country in this time of need and peril, are
requested to meet at the **ISLAND HOUSE** in **Bellows Falls**, on **TUESDAY**,
the 27th inst, at 1 o'clock, P. M. for the purpose of testing their skill in
TARGET SHOOTING. There are great inducements to join this celebrated
Regiment, destined to be the most important and popular in the Service.

No person will be enlisted who cannot when firing at
the distance of 200 yards, at a rest, put ten consecutive shots in a target,
the average distance not to exceed five inches from the centre of the bull's
eye to the centre of the bull.

GREEN MOUNTAIN BOYS!
"Rally for the support of the Stars and Stripes!"
YOU ARE INVITED TO BRING YOUR RIFLES.
F. F. STREETER, Supt of Trial.
BELLAWS FALLS, VT., August 19, 1861.
Printer: John Odell, Bellows Falls.

A *New York Post* article described how Berdan's men were to be employed:

"The Corps of Sharpshooters will be used not in the midst of battle, but on the outskirts, where, beyond the smoke and fury of the engagement, they will act independently, choose their objects and make every shot tell. Posted in small squads at from one-eighth to three-eighths of a mile from the field, firing a shot a minute, and hitting their mark with almost a dead certainty, they will be a great annoyance to the enemy. They will combine their attention to the officers, and by picking these off, will bring confusion into the enemy's lines."

This was not entirely correct, but it captured the flavor of what Berdan intended to achieve: "to hit a man every time at one-eighth of a mile, hit him two out of three times at a quarter-mile, and three out of five times at a half-mile." While this was technologically feasible, it would prove an anti-septic (and naïve) view of the bitter, bloody battles to come. As one recruit wrote after the war, Colonel Berdan "made it appear that all we would have to do would be to pick off Rebel officers and other troublesome Rebels."

In addition to Berdan's 1st and 2nd U.S. Sharpshooter Regiments, other genuine sharpshooter units were organized. For example, two companies of Massachusetts men had passed Berdan's test but instead became the 1st and 2nd Companies of Massachusetts Sharpshooters, or "Andrews Sharpshooters," after their governor. Indiana's 32nd Infantry Regiment recruited a company of German-born marksmen, *Die Turner Schutzenkompanie* (Turner's Sharpshooter Company), which proved worthy of the title. Ohio raised 10 independent sharpshooter companies during the war. And farther west, Colonel John W. Birge raised a regiment that would earn renown as "Birge's Western Sharpshooters" (see "Birge's Western Sharpshooters," page 133). And, of course, there were others.

CONFEDERATE SHARPSHOOTER UNITS

Like their northern counterparts, it's impossible to generalize about the Confederate Army's sharpshooter structure early in the war. From the opening clashes onward, virtually every Southern infantry regiment employed sharpshooters with the same variety of official, unofficial, designated, undesignated, temporary, and permanent status as did the Union Army. Some units alleging to be sharpshooters actually were only skirmishers, while some companies operating as sharpshooters were called skirmishers.

Despite this variation, there was a fairly uniform result: almost every major battle included Southern sharpshooters whose well-aimed shots influenced the outcome. "It was the duty of the

African American Confederate Sharpshooters: Fact or Fiction?

To their utter bewilderment, Union soldiers fighting on several fronts reported encounters with the strangest sharpshooters ever to serve the Confederacy—African Americans. The number of incidents and variety of witnesses are too great to ignore.

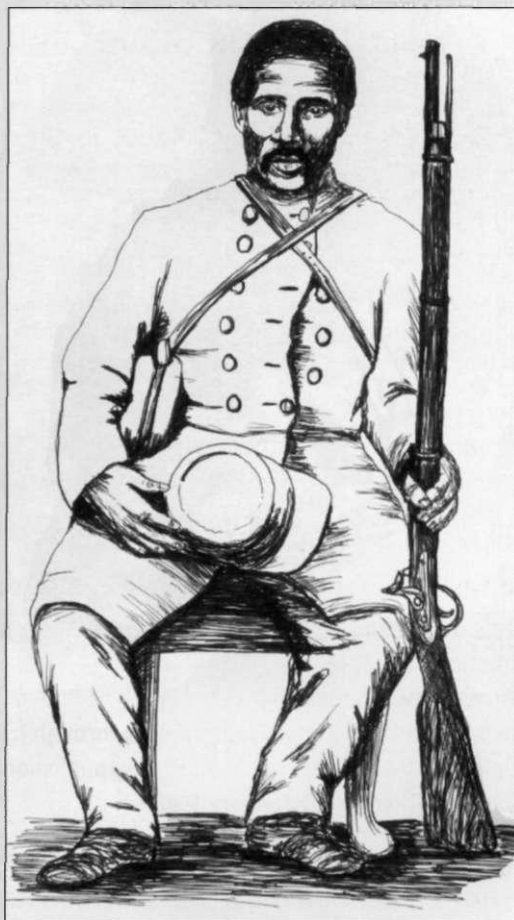
The unit history of Berdan's Sharpshooters, published in 1892, includes an encounter during the Yorktown Siege in 1862 with a "Negro sharpshooter" who was "a good shot at long range." The history reports that "a rebellious black made his appearance by the side of an officer and under his direction commenced firing at us." Initially the Berdan men did not fire back, purposely to embolden him. "This was what our men wanted, to get him within more reasonable range," the book explains. Eventually, Sergeant William G. Andrews of Company E, "with the aid of a fine telescope," spotted the African American sharpshooter "firing through the hole in the back of a fireplace." Andrews shot him dead "and thus ended his sport with his life."

Frederick Kirkland, a Union soldier who fought at Yorktown, similarly reported an African American Rebel sharpshooter, whose "habit was to perch himself in a big tree and keeping himself hid behind the body, [shoot] among the Union men by firing up them."

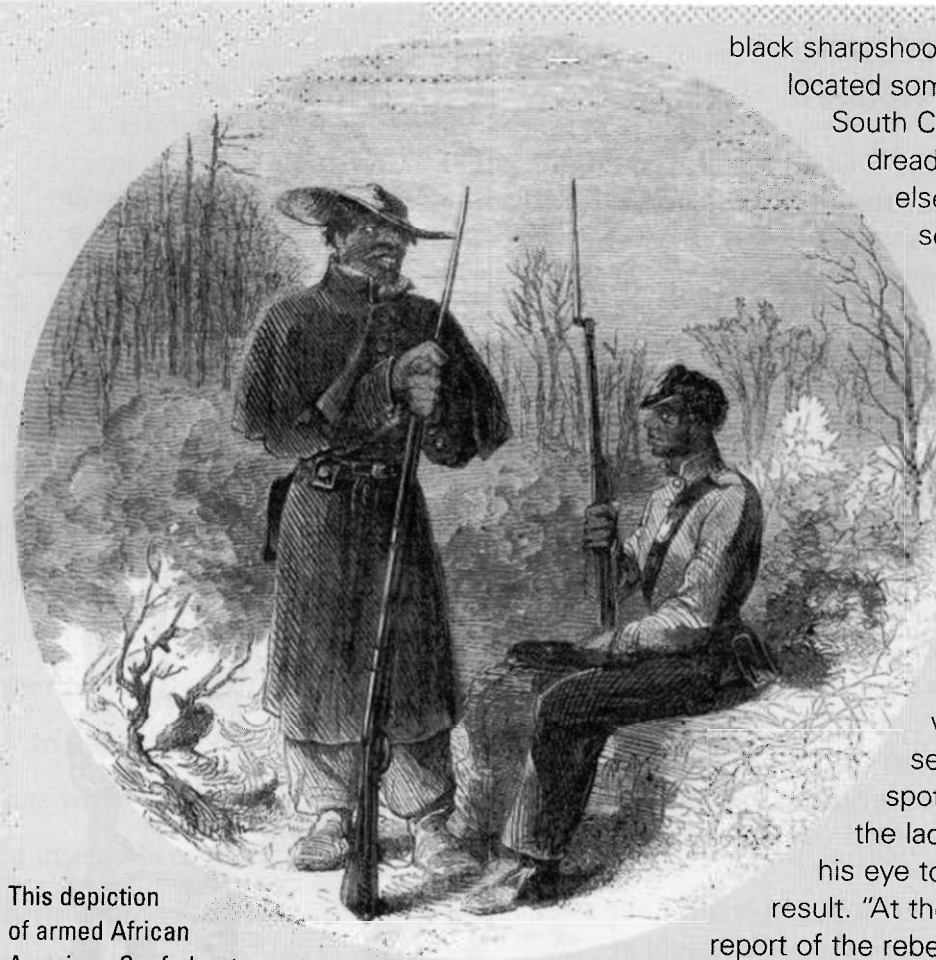
"There are among the rebel sharpshooters, a large number of Negroes," the *New York Herald* announced on 27 April 1862, "who show a good deal of ability in the use of the rifle—in fact, our pickets declare that the best shot among them is a 'darkey,' who climbs the inside of the chimney of a recently burnt house, and knocking out a brick for a porthole, sits perched inside watching his chance of a shot at our people." Originating from Yorktown, this dispatch could have been describing the same enemy sharpshooter killed by Sergeant Andrews.

Professor Ervin L. Jordan Jr., author of *Black Confederates and Afro-Yankees in Civil War Virginia*, wrote, "I know of black Confederate sharpshooters who saw combat during the 1862 Seven Days Campaign." Jordan essentially verifies the time and place of the previously cited incidents. But there were more.

In his memoirs, Lieutenant Albert Jewett of the 4th New Hampshire Regiment recalled a →



Perhaps the least-recognized Civil War soldier: the black Confederate sharpshooter. (Original art by Tami Anderson.)



This depiction of armed African American Confederate pickets, "seen by one of our officers through his field glasses" at Fredericksburg, was published in *Harper's Weekly*, 10 January 1863.

black sharpshooter, "a remarkable marksman, located somewhere about Ft. Wagner," in South Carolina. "This man was more dreaded than almost everything else that opposed us, for his aim seemed as unerring as fate, anywhere within range of his rifle." According to Jewett, this sharpshooter could hit Union artillerymen a half mile away. "One morning soon after we had reached the front, and I had stationed my sharpshooters (about thirty of them usually) I noticed one of them, a mere boy, perhaps seventeen, who was loading his rifle in a seeming hurry." Thinking he'd spotted the black sharpshooter, the lad fired a shot and then put his eye to a peek-hole to see the result. "At the same instant the peculiar report of the rebel marksman reached me and the poor Western boy fell dead, with a bullet through his brain." Jewett never knew what happened to that black sharpshooter.

After his unit received a few well-aimed shots, Private John W. Haley, 17th Maine Infantry, wrote, "Mr. Reb made his whereabouts known, but he was so covered with leaves that no eye could discern him. Our sharpshooter drew a bead on him and something dropped, that something being a six-foot Negro whose weight wasn't less than 300 pounds."

Private James G. Bates of the 13th Indiana Volunteer Infantry wrote his father while fighting near Suffolk, Virginia, in April–May 1863. "I can assure you of a certainty that the rebels have Negro soldiers in their army," he insisted. "One of their best sharpshooters, and the boldest of them all here, is a Negro. He dug himself a rifle pit last night [16 April] just across the river and has been annoying our pickets opposite him very much today. You can see him plainly enough with the naked eye . . . and with a spy-glass there is no mistaking him."

Bates is backed up by another 13th Indiana witness who found duplicity in a black sharpshooter after several Indianans were hit. It was not unusual for slaves to be observed digging positions or performing chores for white Confederates, so Union soldiers usually did not fire at them, considering them noncombatants. The Indianans, however, kept having men shot by a sharp-

shooter that their keenest observers could not detect. "But at last a Negro was observed walking leisurely along the works of the enemy," this account reveals. "He carried in his arms a long fence rail which he carelessly threw across the sand bag in front of him, and then suddenly disappeared from view. In a moment the crack of the rifle was heard, and one of the Indiana boys fell over dead, being shot through the forehead. Our hero now concluded that the Negro was a black rebel, that he was the man who had played such dreadful havoc . . . and that the harmless looking fence rail contained a murderous gun."

Outside Vicksburg, at Chickasaw Bayou, credible witnesses reported an African American Confederate sharpshooter. In the first day's assault, on 30 December 1862, Colonel John B. Wyman, commander of the 13th Illinois Infantry Regiment, "a brave and gallant officer," was allegedly shot and killed by a black Confederate sharpshooter, according to the *New York Herald*. "On our right a Negro sharpshooter had been observed whose exploits are deserving of notice," wrote Thomas Knox, the paper's correspondent. "He mounts a breastwork regardless of all danger, and getting sight of a Federal soldier, draws up his musket at arm's length and fires, never failing of hitting his mark. . . . It is certain that Negroes are fighting here, though probably only as sharpshooters."

General George H. Gordon of the Union Army similarly reported, "Many men from my command were killed, and strange stories bruited about of the precision fire of a negro marksman, a Rebel."

Were these cases of mistaken identity? Sometimes, yes. At the Battle of Williamsburg, Edward Small of the 2nd New Hampshire Volunteers, spotted a black sharpshooter and fired. "I hit that fellow in the head, and he was black enough to be a Negro," he called. The next day, indeed, a dead sharpshooter was found at the place indicated by Small—but *he was an Indian*. A considerable number of North Carolina Indians had joined the Rebel cause; perhaps some had intermarried with African Americans or naturally had dark complexions. This could well account for some "black sharpshooters."

But the number of incidents well away from North Carolina is too great for so pat an answer. The mystery, then, is motivation: why would a black man have fought for the Confederate cause? Since these black sharpshooters were encountered only as lone shooters, it's possible that they fought as individual freemen, superb marksmen who sold their shooting services—essentially, paid mercenaries.

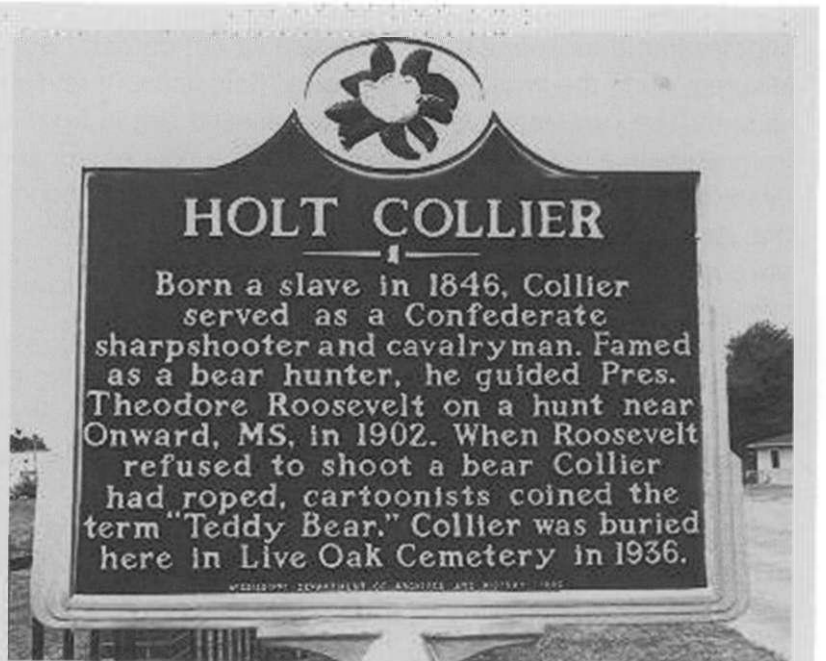
That may be true for some, but I think the more likely explanation is found in the experience of Holt Collier, the only black Confederate sharpshooter I can actually put a name to. A hunting guide made famous in 1902 when his hunter →



Holt Collier, hunter, guide, respected resident of Greenville, Mississippi—and a former Confederate sharpshooter.

client, President Theodore Roosevelt, refused to shoot a restrained bear—igniting the national craze for “teddy bears”—Roosevelt found the former slave a decent man who had “all the dignity of an African chief.” How, then, had he fought for the Confederacy? “In the Civil War,” Roosevelt explained, “he had not only followed his master to battle as his body-servant, but had acted under him as a sharpshooter against the Union soldiers.”

On 28 February 2004, the Veterans Administration provided a Confederate headstone that was ceremoniously placed atop Collier’s previously unmarked grave—to commemorate Mississippi’s only officially recognized Confederate soldier of African descent and, as residents still say, one of the finest shots in that region.



This memorial marker identifies the cemetery where Collier is buried in Greenville, Mississippi.



A Rebel sharpshooter killed Union Major General Isaac I. Stevens at Chantilly on 1 September 1862.

sharpshooters," one Virginia veteran explained simply, "to be in front in an advance and in the rear in retreat, creeping and running from shelter to shelter, always on the lookout for a good shot."

Sometimes their presence was officially cited. On 28 April 1862, Major General John Magruder reported that his right wing of the Army of the Peninsula included "four companies armed with long-range guns, and constitute the only corps of sharpshooters." That same month at Yorktown, Virginia, the 1st Texas Voluntary Infantry Regiment was called on "to provide sharpshooters to harass Yankee scouts and skirmishers who closely approached the Confederate works." This 200-man detachment existed for several months and "operated beyond and independently of the regular pickets, and soon became a terror to the enemy." A year later a similar battalion of Texas sharpshooters was formed under "the popular and charismatic" Captain Ike Turner, later killed, ironically, by a Union sharpshooter "while standing on top of the breastworks" near Suffolk, Virginia.

THE EARLY BATTLES

Going back to the war's opening days discloses an almost childish naivete about sharpshooting, even among senior leaders. The *New York Herald* reported that Union Army Commander in Chief George McClellan "looks with abhorrence upon the barbarous practice of the shooting of pickets, which he regards as murder, and has strictly forbidden." Did he actually expect Confederate sharpshooters not to shoot Union soldiers on outpost duty? And did he think men willing to shoot pickets would not shoot generals? Even after the major bloodletting at Bull Run, *Harper's Weekly* noted, "Picket-firing is not considered humane business in modern warfare."

A proper respect for the very real threat of well-placed Rebel Minie balls had yet to take hold. On 21 October 1861, a lifelong friend of Abraham Lincoln's, Colonel Edward Baker—after whom the president named his second son—led a brigade-sized diversionary attack across the Potomac, 30 miles northwest of Washington. A Mexican War veteran, Baker was also a U.S. Senator from Oregon when



This Rebel sharpshooter and his enormous rifle were captured in April 1861 along the Potomac, over which he presumably intended to snipe.

Who Shot Ben McCulloch?

Sharpshooters who killed general officers in the Civil War mostly remain anonymous. In many cases sharpshooters were too preoccupied with the tactical situation and likely fired at too great a distance to notice more than that they'd unhorsed a man or that his location or actions had suggested the target was an officer. In many cases, sharpshooters fired so quickly against a variety of fleeting targets that there was no time to digest whom they had shot. And other sharpshooters, even if they knew, did not desire the "credit" for what many considered a grisly act of deliberate killing.

On the other hand, occasionally there were conflicting claims, such as in the case of Brigadier General Ben McCulloch. Several postwar books accredited that fatal shot to the legendary gunfighter, James "Wild Bill" Hickok, who indeed was present at Elkhorn Tavern as a Union scout and sharpshooter. Hickok's own biography, *Wild Bill*, asserts he spent that day "lying behind a large log on a hill overlooking Cross-Timber Hollow for nearly four hours, picking off Confederates. His victims numbered thirty-five, and were of all ranks, from the private soldier to Gen. McCulloch." Serious historians doubt Hickok's claim, pointing out that official records attribute the kill to an Illinois infantryman.

In fact, Union Colonel Nicholas Greusel, commanding the 2nd Brigade of the 1st Division at Elkhorn Tavern, officially reported, "It was during this skirmish that the officer supposed to be General Ben McCulloch was shot by Peter Pelican of Company B, Thirty-Sixth Illinois Volunteers." Greusel's report is considered the authoritative account.

Then was Wild Bill Hickok's claim an exaggeration or an outright lie? His other assertion—that he shot 35 Confederate soldiers that day—is certainly hard to believe . . . unless you know a bit more about Wild Bill.

After the Civil War, Wild Bill became a famous Western gunfighter, and his handiness with a gun or his readiness to use it in a life-and-death fight is no myth. For some 26 years as a lawman and as a private citizen, Hickok fought and won well-documented gunfights in Kansas, Nebraska, Colorado, Missouri, and South Dakota. At a distance of 75 yards—with a revolver—he shot dead Dave Tutt in Springfield, Missouri, "with a shot squarely into Tutt's chest." Possessing legendary shooting skills matched by an



Union scout-sharpshooter James "Wild Bill" Hickok, later a legendary Western gunfighter.

equally grim attitude, when firing from a tactically advantageous position Hickok certainly could have gunned down 35 Confederate soldiers on 7 March 1862.

What then about the claim that he shot General McCulloch? In fact, it's entirely possible that both Peter Pelican and Wild Bill shot Confederate generals that day. For, no sooner had McCulloch fallen than Brigadier General James M. McIntosh was killed "while leading a charge to recover McCulloch's body." Yes, *two generals* fell at Elkhorn Tavern, nearly side by side, to such catastrophic effect that Confederate forces lost the day and, with it, control of the state of Arkansas to Union forces.

After Wild Bill was murdered in Deadwood, South Dakota, he was properly interred like the great marksman that he was. "We buried him in a rough coffin with his big Sharps rifle by his side," reported a friend. "His left arm was laid cross-wise, beneath his back, just as he carried it in life. His right arm was extended downward by his side with his hand resting on his rifle."

he urged his men onward at the Battle of Ball's Bluff, making himself "a fair mark by his erect form and venerable appearance for the enemy's sharpshooters, of which numbers had climbed to the treetops from the first and kept up a con-



A Union picket collapses, shot by a hidden Confederate sharpshooter. Union General George McClellan thought sharpshooting "a barbarous practice."

stant fire, especially singling out officers whenever they appeared." When sharpshooter fire unmanned an artillery piece, Colonel Baker grabbed several men and put it back into action—and instantly fell, shot dead by a sharpshooter. Dragging along their leader's body, Baker's demoralized troops retreated to the Potomac in terrible disorder, with many men shot and swept away in its turgid waters.

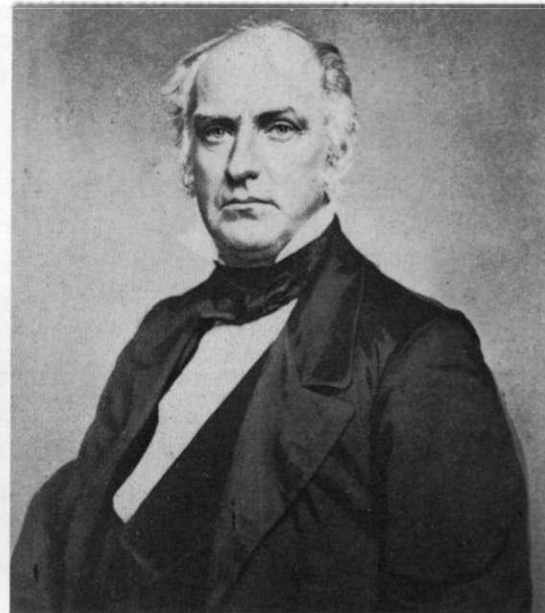
In the West, too, senior commanders did not fare well when they ignored the dangers of Confederate sharpshooters. At the Battle of Wilson's Creek, Missouri, on 10 August 1861, General Nathaniel Lyon rode his horse among

advancing Union infantrymen, swinging his hat aloft and waving them forward. Wounded slightly, Lyon was unhorsed and stunned. Atop a second mount, he continued shouting and waving his hat—and this time the Missouri sharpshooter's round impacted center-chest. Not only did Lyon die, but his leaderless army lost the field and the battle.

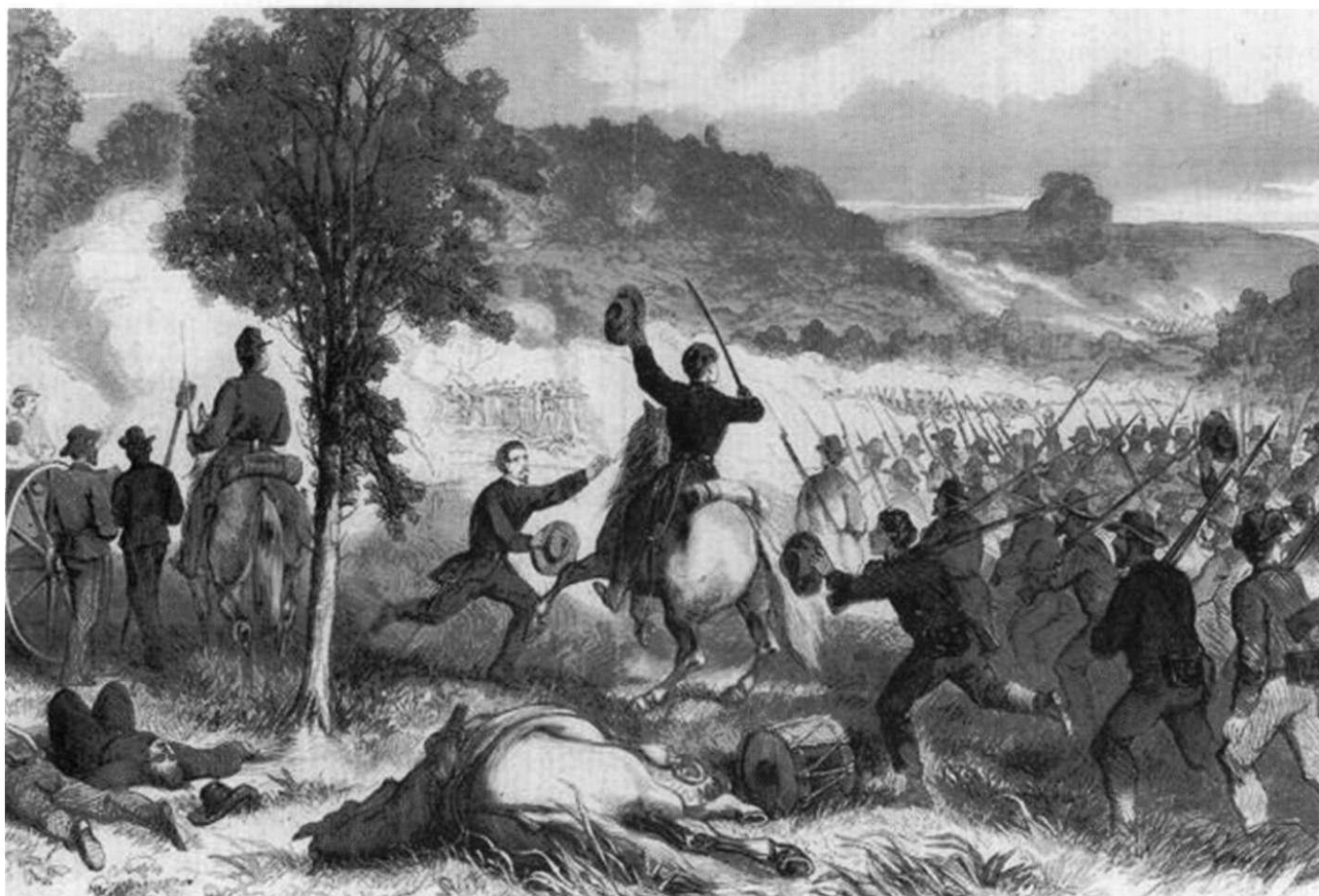
The victor that day at Wilson's Creek,



Defeated Union soldiers fall back to the Potomac River, carrying their fallen leader, Colonel Edward Baker.



Union Colonel Edward Baker, also a U.S. senator, was shot dead by a Rebel sharpshooter at the Battle of Ball's Bluff.



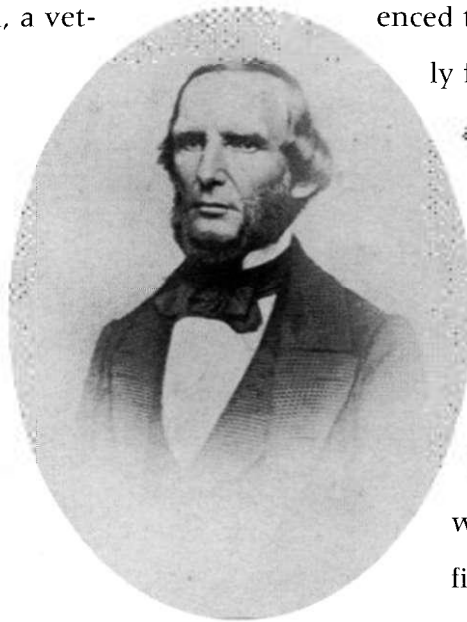
General Nathaniel Lyon disregards an aide's warning, riding forward with his troops—right into a sharpshooter's bullet.

Brigadier General Ben McCulloch, a veteran of the Texas War of Independence and prominent member of his state's legislature, would have stood well to have learned from the death of Lyon. In fact, quite the opposite occurred, for on 7 March 1862 at the Battle of Elkhorn Tavern, General McCulloch's "dress attracted attention," one account discloses. "He wore a dress of black velvet, patent-leather high-top boots, and he had on a light-colored broad-brimmed Texan hat."

One well-aimed Union bullet snuffed his life as surely as his opponent Lyon's had been snuffed months earlier.

U.S. SHARPSHOOTER REGIMENTS' FIRST BLOOD

Having trained through the winter of 1861–62, by spring Berdan's Sharpshooter Regiments were ready for action. Accompanying General George McClellan's Army of the Potomac, they landed on Chesapeake Bay, 60 miles southeast of Richmond, to bypass the extensive works defending northeast Virginia. When McClellan besieged the Rebel's coastal fortifications at Yorktown, Berdan's men experi-



Brigadier General Ben McCulloch, CSA, was allegedly shot by famous scout-sharpshooter "Wild Bill" Hickock.

enced their first taste of battle, especially focusing their fire on enemy artillery positions.

"Gun after gun was silenced and abandoned," recorded a sharpshooter officer, "until within an hour every embrasure within a range of a thousand yards to the right and left was tenantless and silent." Return fire did little to stop the sharpshooters. "Their infantry," the officer continued, "which at first responded with a vigorous fire, found that exposure of a head

meant grave danger if not death."

Unaccustomed to such concentrated, well-aimed fire, Confederate troops beyond the front lines moved about openly—but not for long. While an officer observed through binoculars, "a few shots were fired by picked men . . . to ascertain the exact range, which was then announced and the order given, 'Commence firing.'" The result was deadly, and the Rebels quickly learned to avoid unnecessary exposure at any distance.

Confederate sharpshooters firing from concealed rifle pits proved their most difficult foes, keeping up "an annoying fire from which the Union artillerists suffered severely." Because these shooters were "usually behind a cover of nature or artificially planted bushes . . . it was

Sharpshooters Against Ships

Possessing a decisively larger fleet, the Union Navy blockaded the South to cut off supplies from Europe and to slice apart the Confederacy along major rivers. Control these waterways, it was believed, and the rebellion would wither away.

Confident in their superiority, Union ironclads initially left their decks and wheelhouses unprotected from small arms fire—and here was a vulnerability. Rebel sharpshooters flocked to bluffs and shorelines to take shots at these unwary naval passersby, sometimes with considerable success.

On 21 June 1861, the Union Navy's seven-ship Potomac Bay flotilla, commanded by Commander James H. Ward, landed troops on the Virginia shore to attack a Rebel artillery battery. One of the Navy's brightest senior officers, Ward had been a founding instructor at Annapolis and the author of several books on strategy and modern technology. Aboard his flagship, the *Thomas Freeborn*, a side-wheel ironclad, Ward soon realized the attack had failed and ordered a withdrawal. Bringing his ship near shore to cover the extraction, Ward left the bridge to sight the *Freeborn's* bow gun and was shot dead by a Confederate sharpshooter, the first naval officer of either side to die in the war.

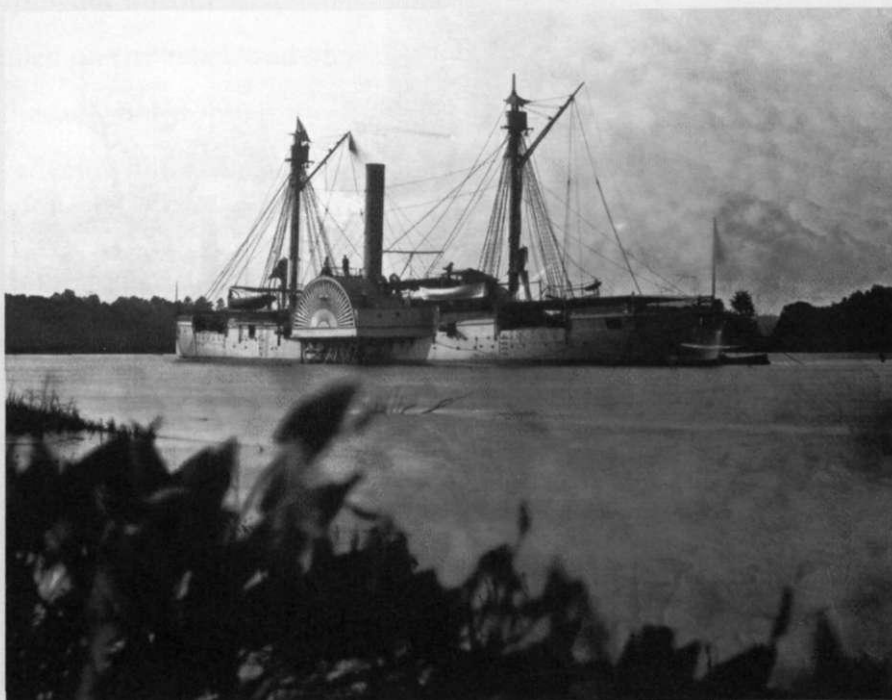


The first naval officer to die in the Civil War, Union Navy Commander James Ward was shot by a Rebel sharpshooter while aboard the USS *Freeborn*.



Confederate sharpshooters snipe at a passing Union gunboat.

Every time a Union ship ventured into a Southern river, it faced the possibility of sharpshooter fire, sometimes causing no more than a metallic hailstorm when bullets splattered into its protective hull. Other times, caught unaware, Union officers walking the deck or observing through binoculars were picked off one after another. "Once in a while the top of a man's head would rise above the bulkhead and a body shot would be received by an unfortunate Yank that chanced to show his head above what we called the 'dead' line," wrote one former sharpshooter.



A sharpshooter's view of a Union ironclad on Virginia's James River.



Unprotected against small-arms fire, the crew of a Union gunboat prepares to fire a deck gun.

Even when no one was visible aboard a Yankee ship, Rebel sharpshooters demonstrated their skill by ringing ships' bells or hitting materiel targets. Confederate sharpshooter Tom Hall recalled "shooting the sights off the big guns on the gunboats. Every day we could see the brass shine a mile off, and whenever we were sure one could be 'tripped' the crack of an Enfield would ring merrily over the water, and away would fly a valuable piece of Yankee property."

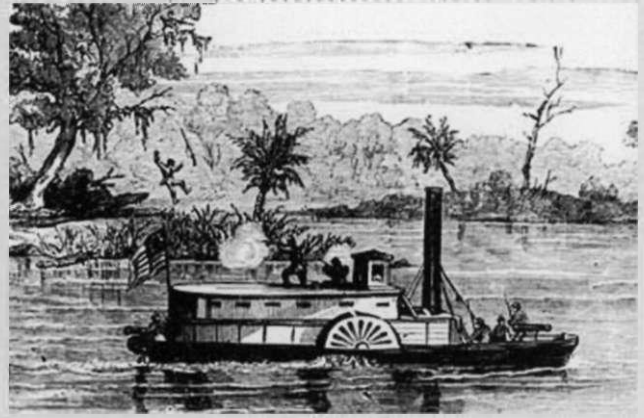
Union gunboats fired back, of course, but often with little effect. "In the entire five weeks that our squad was fighting gunboats," sharpshooter Hall reported, "only three of us were hurt, and they were caught by a big limb that a Yankee shell knocked off a tree."

Such was not always the case. On Virginia's James River, Lieutenant Davis Constable on the USS *Naugatuck* had identified a sharpshooter's position, but every time he attempted to return fire with his own rifle, the Reb dropped from sight. The clever sailor had a deck gun trained on the spot and waited for the shooter to reemerge. "Sure enough," he wrote, "when the fellow saw me standing without a rifle in my hand he again thrust the muzzle of his rifle through the bush, but before he could ➔

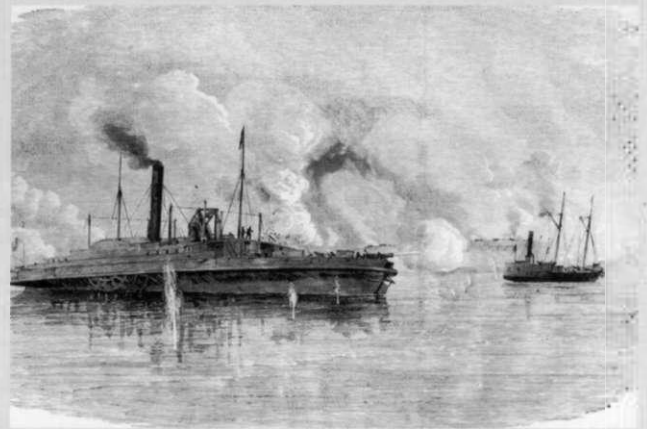
pull the trigger I raised my hand. 'Bang!' went the 12-pounder, and when the smoke cleared away, rebel, gun and all had been destroyed."

In several instances, Confederate sharpshooters were instrumental in the capture of Union picket ships and gunboats. On 20 January 1863, sharpshooters aboard the CSA's *Josiah A. Bell* in the Gulf of Mexico repeatedly swept the decks of the Union picket ship, USS *Morning Light*, forcing her to strike her colors. The following May on Mississippi's Yazoo River, the Union ironclad *Petrel*, with 80 men and eight guns, was subjected to similar fire. "In less than a minute every living soul visible on or near the boat at the opening of the fire was swept away, killed or wounded," reported the *Charleston Mercury* newspaper. While a boarding party swam furiously to seize her, sharpshooters drove the pilot from the wheel, leaving the USS *Petrel* uncontrolled and, momentarily, in Rebel hands.

Such close-run things did not always succeed. In September 1863, the Union Navy put 75 sharpshooters aboard the USS *Clifton* and 30 more on the USS *Sachem* to suppress Rebel batteries at the mouth of the Sabine River, on the Louisiana-Texas border as part of a larger landing. A lucky Confederate artillery shot struck the *Sachem*, tearing away the iron plate from the sharpshooters and scalding many with live steam. Just then the *Clifton* ran aground and artillery pummeled her helpless hull. Both ships were lost, and with that an important reality reinforced: sharpshooters, too, had their limits.



Riflemen aboard a Federal side-wheeler pick off a Rebel sharpshooter.



Despite 100 sharpshooters on their decks, the USS *Sachem* (left) and the USS *Clifton* succumb to enemy fire at Sabine Pass, Texas.

almost impossible to dislodge their occupants; every puff of smoke from one of them was, of course, the signal for a heavy fire of Union rifles." But the savvy Rebel shooters would duck below ground, wait for attention to shift elsewhere, and then plink away again.

One "particularly obnoxious and skillful rifleman" at Yorktown engaged a Berdan Sharpshooter in a classic sniper duel, one of the earliest ever recorded. Private John S.M. Ide, a New Hampshire man with the 1st Regiment's Company E, "devoted himself" to finding and eliminating the troublesome Confederate marksman. As he fired a heavy target rifle with telescopic sight, Ide's exchange "was watched with the keenest interest by those not otherwise engaged." Several shots went back and

forth, "but fortune first smiled on the rebel, and Ide fell dead, shot through the forehead while in the act of raising his rifle to aim." Ide was the regiment's first man killed in action. The duel, however, was not over.

Lieutenant Colonel William Y.W. Ripley, the 1st Regiment's executive officer and himself an excellent shot, saw Ide fall. Earning "the admiration of hundreds of eye witnesses,"

Lieutenant Colonel Ripley strolled over "while bullets plowed and dusted the ground around him," picked up the fallen man's loaded rifle, and announced, "I'll try him a shot at one notch higher anyway." Cranking up the telescope, Ripley took careful aim when "the triumphant rebel, made bold by his success, raised himself into view." Firing at almost the same instant, the Rebel sharpshooter's shot splattered harmlessly behind Ripley, but most believed the colonel had felled his man, for no further shots followed.

On 4 May the Confederates abandoned Yorktown, falling back toward Richmond. In this, Berdan's Sharpshooters' first battle, the *New*



Sergeant James W. Staples, 1st U.S. Sharpshooter Regiment, with a Colt revolving, five-shot repeater. Staples was killed on 30 June 1862 at the Battle of New Market, Virginia.

York Herald declared that their "unerring accuracy of shots at long range has caused a universality of bewilderment." General Fitz-John Porter, whose division they'd supported, congratulated their "good service in picking off the enemy's skirmishers and artillerists whenever they should show themselves."

The campaign continued, the Army of the Potomac again pushing toward Richmond. Soon, however, massing Confederate forces slowed the advance and then halted it entirely, and

eventually General McClellan was obligated to turn back toward the coast, fighting a series of clashes called the Seven Days Campaign. On 1 July the Union Army went into defense at Malvern Hill, and here, again, Berdan's Sharpshooters demonstrated their remarkable abilities. While Union gunboats in the nearby James River threw covering fire over the sharpshooters' heads, they fought head-on against approaching Rebel forces.

A column of draft horses dragging artillery pieces galloped into an open field before them.

"As the head of the column turned to the right to go into battery, every rifle within range was brought to bear, and horses and men began to fall rapidly," wrote an eyewitness. Ignoring the deadly fire, the artillerymen "pressed on, and when there were no longer horses to haul the guns, the gunners sought to put their pieces into battery by hand; nothing, however, could stand before that terrible storm of lead, and after ten minutes of gallant effort the few survivors, leaving their guns in the open field, took shelter in the friendly woods." The destroyed battery was McCarthy's Richmond Howitzers, manned by some of Virginia's most prominent sons, now mostly dead or wounded. For many it was their first fight—and their last. So deadly was the sharpshooter fire that "not a gun was afterward placed or fired from that quarter during the day." Describing that terrible action after the war, one battery survivor said, "We went in a battery and came out a wreck. We staid [*sic*] ten minutes . . . and came out with one gun, ten men and two horses without firing a shot."

The battle, however, was not one-sided. After the Confederate attackers had been beat back, the scale of this terrible bloodletting became clear. Some 16,000 Federal troops had been killed or wounded during the Seven Days Campaign, plus a staggering 20,600 Confederates. The Berdan Sharpshooters, who'd totally expended their ammunition, had suffered major casualties, too, with some companies losing half their men killed or wounded. After Malvern Hill, it would take months to receive and train replacements.

Among the seriously wounded was Lieutenant Colonel Ripley, who at Yorktown had engaged the Rebel sharpshooter who killed Private Ide. Narrowly avoiding amputation of his right leg, Ripley's military service was over. But his gallantry at Yorktown and Malvern Hill, "above and beyond the call of duty," did not go unrecognized. He was awarded the Medal of Honor, the first U.S. sharpshooter so honored.

Noticing the dwindling sharpshooter ranks as they passed before him, General McClellan said, "It's too bad! But they are good what's left of them."

ATTITUDES ABOUT SHARPSHOOTERS

Depending on the source, Berdan's men and their Confederate counterparts were considered bloodthirsty assassins, unexcitable target shooters, elite warriors, undisciplined prima donnas—respected, detested—all these things and more.

Native American Sharpshooters

In the summer of 1863, some 142 Chippewa, Menominee, and Huron Oneida Indians were recruited in Michigan and organized as Company K of the 1st Michigan Sharpshooter Regiment. The company's two most senior officers were white, but the other officer, Lieutenant Garrett A. Graveraet, was a Native American. The unit's roster lists many traditional family names, such as Mash-Kaw and Ne-so-Got and Pa-Ke-Mabo-Ga. Quite a few did not even speak English—not a problem since Lieutenant Graveraet and his Native American sergeants were bilingual.

An idealist and well educated, at the war's commencement Graveraet was teaching school to Indian children at Little Traverse Bay. For leisure, this man of sophisticated interests painted portraits and landscapes and was an accomplished musician.

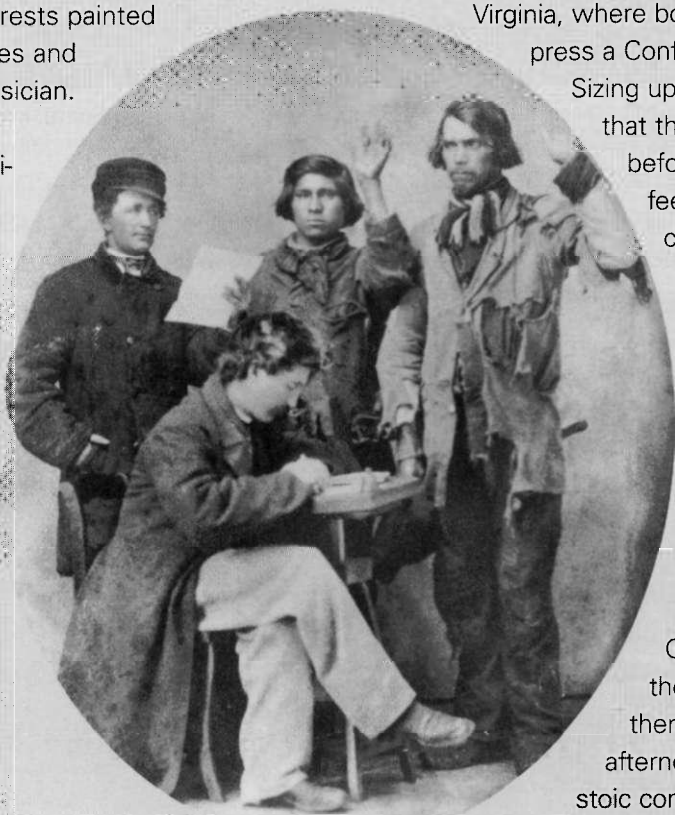
Despite being economically deprived, these men did not enlist simply for cash bonuses. "We are descendents of braves," declared Chief Nock-ke-chick-faw-me to his young warriors in 1863, asking them to be "heroic and brave" and join the Union cause. "If the South conquers," he warned, "you will be slaves, dogs. There will be no protection for us; we shall be driven from our homes, our lands, and the graves of our friends."

Unlike many Union sharpshooters, Company K's men brought a natural aptitude to

their duties. Dwelling in Michigan's northern forests as subsistence hunters, they were masters of tracking, shooting, stalking, and camouflage. Finding their Union blue uniforms too conspicuous, Company K's Indians would "find a dry spot of earth and roll in it until their uniform was the complete color of the ground before going out on the skirmish line." On rainy days each Indian smeared mud over his clothing until it was "the color of the earth." The whites of the 1st Michigan learned to do likewise, the regimental adjutant, Major Edward Buckbee, noted, enabling the regiment to do "the closest skirmishing at the least cost of any Regiment in the division."

Sergeant Wyman White, a Berdan Sharpshooter, encountered a Michigan Indian sharpshooter in Virginia, where both were targeted to suppress a Confederate artillery position.

Sizing up the terrain, White noticed that the half-grown cornfield before him—the stalks hardly 2 feet high—would not allow concealed movement. This was not so to his Indian companion, who advised, "Make self corn. Do as I do." Cutting off a dozen corn stalks, the Indian stuffed them into his clothes and equipment. White did likewise, and both men crawled through the field without detection. Gaining a concealed spot, they shot away and "kept them from using the guns all afternoon." White never saw his stoic companion again.



Two Native Americans are sworn in as Michigan Sharpshooters, 1861.
(Courtesy of Wisconsin Historical Society.)

The Confederates, too, found curious their encounters with these Michigan Indian sharp- ➔



Wounded Native American sharpshooters, most likely of Company K, 1st Michigan Sharpshooter Regiment, during the Wilderness Campaign, 1864. (Courtesy of Library of Congress.)

shooters. Major W.A. Smith of the 14th North Carolina Infantry recalled a clash in thick woods when his men believed the Indians, their backs against open fields, would be compelled to surrender or die. "When driven into the open they did not fire again at us, but ran like deer," he reported with surprise. "We captured not one of them."

Their shooting could be as effective as their stalking skills. At Cold Harbor, Company K's Indians focused their fire on the enemy's withdrawing artillery, disrupting every attempt to hitch horses to the guns. Their aim was sure, for afterward, another Union unit "found 26 dead horses at one battery, and 37 at another."

These Indian's warrior ethics at times had to be an inspiration to the men about them. For instance, the desertion of a young Chippewa soldier had a most remarkable result. When word reached his family back in Michigan, the deserter's middle-aged father, Ash-ka-buga-ma-ka, arrived unannounced at the company's field position in Virginia, having paid his own railway fare to get there. He enlisted in Company K, he explained, "to maintain the family's honor." He served honorably to the end of the war.

Some Company K sharpshooters were especially noteworthy, among them an elderly Chippewa marksman known as "Old One Eye." Somehow managing to get past recruiters with just one eye, according to a 1st Michigan officer, the old man "could see further and shoot quicker and more accurately with his left eye than most men could if they had a dozen eyes."

When a distant Rebel sharpshooter annoyed Brigadier General Orlando Wilcox's staff with a series of

near-misses at Cold Harbor, One Eye was called in to hunt him down. Once briefed, the stoic old brave sat on the ground, just eyeing the headquarters area and surrounding woods, thinking, saying nothing for 30 minutes. Then he walked off. The following afternoon, a Union patrol reported a shot fired quite a ways off—not by the Rebel sharpshooter, but by some hidden rifleman who had shot the Rebel out of a tree. Old One Eye, when asked by the regimental adjutant what had happened, replied simply, “Me got ‘im.”

Another Indian sharpshooter, Antoine Scott, was cited in the Michigan Adjutant General’s records for his valor at the Battle of the Crater: “Before Petersburg, July 30, 1864, instead of screening himself before the captured works, this soldier stood boldly up and deliberately fired his piece until the enemy was close upon him, when, instead of surrendering, he ran the gauntlet of shot and shell and escaped.”

A third extraordinary sharpshooter was Private Daniel Mwa-ke-we-naw, 41, a powerful man who stood over 6 feet. At Spotsylvania, this superb rifleman was credited with shooting “not less than thirty-two rebels, a number of them officers.” Wounded in the face, head, and hand, Mwa-ke-we-naw continued firing until he simply could not operate his rifle. His wounds were dressed, but he died of a resulting infection.

Spotsylvania also proved the darkest episode in Company K’s history. Some 13 Native American sharpshooters died there, including Lieutenant Graveraet’s father, a sergeant, killed instantly when a Minie ball struck him in the head. Hailing Company K’s performance at Petersburg as “splendid work,” a Union lieutenant also sadly reported, “Some of them were mortally wounded, and drawing up their blouses over their faces, they chanted a death song and died—four of them in a group.”

Promoted and commanding the company at Petersburg, Lieutenant Graveraet, too, was severely wounded by an artillery shell. His left arm was amputated, but that did not save his life. On his deathbed, Graveraet insisted, “Fightin’ for my Country is all right.” He is buried on Mackinac Island, Michigan, beside his father. By the time they mustered out at the war’s end, less than two-thirds of Company K’s original enlistees were still alive.



Delaware Indian scouts between missions in a Union Army camp.

Lieutenant Colonel Ripley of the 1st U.S. Sharpshooter Regiment observed:

"Sharpshooting is the squirrel hunting of war; it is wonderful to see how self-forgetful the marksman grows—with sportsmanlike eyes he seeks out the grander game, and with coolness and accuracy he brings it down. At the moment he grows utterly indifferent to human life or human suffering, and seems intent only on cruelty and destruction; to make a good shot and hit his man, brings for the time being a feeling of immense satisfaction."

That description aptly fit many Confederates, too, who likened their role to one big hunting trip, such as Joseph Nesbett, an elder Tennessee sharpshooter. A companion reported, "Every time he shot he would blow the smoke out of his gun, as was his custom when squirrel shooting at home."

Others were antisocial firebrands. David "Old Dave" Temple of Andrews Sharpshooters, the best shot in his company, was a "reckless old Cuss and cares nothing for any body," wrote Private Roland Bowen. One day, he reported, "Old Dave" announced he'd "kill a few God damned Johnnys in revenge for the death of Capt. Saunders at Antietam." With two men, Temple slipped into a forward position "and proceeds to give them Hell. He bangs away all day." Both companions were seriously wounded, but "Old Dave" came back unscratched, happy that he had sent "20 damned Skunks of Hell to have a reckoning with their Eternal Creator."

For sheer audacity, it's difficult to exceed a gutsy Confederate sharpshooter who thought he was a one-man army, encountered at the Battle of the Wilderness by John Worsham, a Virginia soldier:

"We found one Confederate soldier, an Alabaman, who was standing behind a large pine tree, loading and firing with as much deliberation as if he were firing at a target. He was keeping the whole of Hancock's force back at this point. He said he was a sharpshooter, and his line was on each side of him! There certainly was no other Confederate unit in front of our regiment line, nor could we see one either on the right or left."

Sharpshooters of both sides displayed an independent spirit that could verge on insubordination. Hungry, without rations for days, a body of Berdan's men marched along a Virginia road and called to passing officers, "Hardtack! Hardtack!" When Brigadier General John H. Ward and his staff rode past, again they hollered, "Hardtack!" Halting his horse and drawing a pistol, the arrogant Ward shouted, "God damn your souls to hell. The next man that says, 'Hardtack' I will put a ball through his head!"

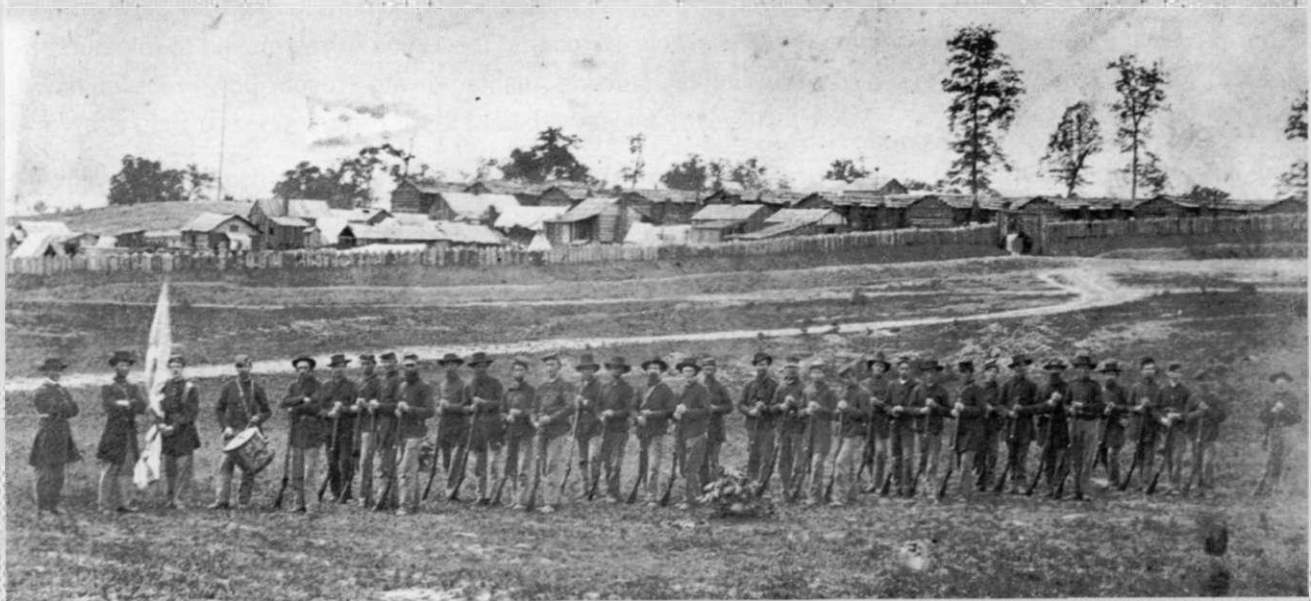
Birge's Western Sharpshooters

In the Civil War's opening year, a counterpart to Berdan's Sharpshooters was organized in the Union Army's Western Department, known as "Birge's Western Sharpshooters." Commanded by Colonel John W. Birge, it was the brainchild of Major General John C. Fremont, one of Lincoln's original four senior commanders. Fremont wanted Birge's Sharpshooters to be elite marksmen and serve as his scouts and skirmishers. Three companies were recruited from Ohio and three from Illinois, while individual recruits from Iowa, Wisconsin, Michigan, and Minnesota fleshed out three more companies.

Their unique armament was the Dimick American Deer and Target Rifle, a heavy-barreled percussion firearm manufactured in St. Louis, Missouri. General Fremont even designed a distinctive headgear for them, which incorporated three squirrel tails, giving them the nickname "The Squirrel Tails."

General Fremont's replacement, Major General Henry Halleck, wisely employed Birge's men, inflicting a lopsided 4:1 casualty rate at the Battle of Mt. Zion, which Halleck thought "resulted from the long range rifles of our sharpshooters." When attached to Brigadier General Ben Prentiss' brigade at Fort Donelson, however, a sharpshooter recorded, "Here the general was a little perplexed to know what to do with Deer rifles without bayonets and did a terrible amount of swearing because the Regiment was armed with that type of rifle; but, finally concluded to let them fight in their own way."

Fighting in their own way deeply impressed General Lew Wallace, who watched as "they dispersed, and, like Indians, sought cover to please themselves behind rocks and stumps, or in hollows. Sometimes they dug holes; sometimes they climbed into trees. Once in a good location they remained there all day. At night they would crawl out and report in camp."



Company C, "Birge's Western Sharpshooters" or the 66th Illinois Infantry Regiment, at Camp Davies, Mississippi, 1863. Armed here with Dimick Deer and Target Rifles, the sharpshooters soon acquired Henry lever-action rifles. (Photo © Bureau County Historical Society, Princeton, IL 61356.)

At the Battle of Fort Donelson, *Harper's Weekly* noted that these "keen-eyed" sharpshooters, firing from 300 yards, engaged any Confederate head to show above the works. "The fire was so incessant and so fatal," it noted, "that the Confederates were allowed no rest except in their uncomfortable rifle ditches, it being impossible to reach their tents over the ridge without exposure." Colonel Jacob G. Lauman verifies this, writing that Colonel Birge's Sharpshooter Regiment "deserves great credit for its part in the capture of Fort Donelson," in particular for their precision shooting, "which told severely on the Confederate gunners serving the battery." This fire, the unit history notes, "made it possible for General C.F. Smith to gain the heights and for General Grant to capture Fort Donelson . . . the following day." This was Grant's first major victory.

Afterward the sharpshooters fought at Shiloh; then, disregarding the men's diverse origins, the regiment was renamed the 14th Missouri Infantry Volunteers and assigned a new commander. At the Battle of Corinth, Mississippi, their exacting fire helped turn back a major Confederate assault. One Rebel leader, Colonel William P. Rogers, commanding the 2nd Texas Infantry, was slain by concentrated sharpshooter fire, his body struck no fewer than 11 times.

Now suffering under commanders who didn't realize their capabilities, the sharpshooters spent months on rear-echelon details in Corinth. Then in November 1862, the regiment was redesignated the 66th Illinois Infantry, a title it would carry to the end of the war. Another year of misemployment followed, with the unit operating a POW stockade and securing rear areas from "rebel scouts and guerrillas."

Frustrated by their Demick rifles' low rate of fire, that fall of 1863 every man in the regiment anted up \$43 (three months' pay) to privately purchase Henry repeaters, the world's first reliable lever-action rifle. "This arm did much to make the Regiment famous," the unit history notes, "and the men who purchased them with their own means deserve credit." What they had given up in maximum range, they believed, was more than made up in sheer firepower, *an unbelievable 17 rounds!* The Union Army refused to reimburse them for the rifles but agreed to provide ammunition. Outside Atlanta, Private Prosper Bowe recalled how well the Henrys worked:

"[W]hen the order was given to open on them we started our seventeen shooters to work. The first column in front of us nearly all fell at the first two volleys but they stood their ground well. . . . I stood and fired ninety rounds without stopping. My gun barrel was so hot that I could not touch it. Spit on it and it would siz . . ."

At Rome Crossroads on 16 May 1864, the sharpshooters suffered considerable casualties, including their regimental commander, Colonel Patrick Burke, who died of his wounds. Attributing the heavy losses to the "foolhardiness" of a Captain Taylor, unit historian Lorenzo Barker noted that before the action Taylor had declared, "I will either have a larger stripe [promotion] on my shoulders or I will leave my body on the field." Barker recalls, "He left his body on the field, he was shot square through the forehead."

The 66th Illinois fought in the Atlanta Campaign and then in Sherman's March to the Sea, demonstrating great shooting skill and an incredible rate of fire. By the end of hostilities, some 244 sharpshooters had been killed or wounded.

All was still. The general turned his horse and *every man in the regiment* yelled, "Hardtack!" Ward hesitated to make good his threat—all around he heard the "click" of cocking rifles—so off he rode. The only repercussion, one sharpshooter noted, was "the old puffball told the officers that he would hold them responsible for our good behavior, and that ended the matter."

The soldiers fired on by sharpshooters acquired a special loathing for these invisible killers who took lives detachedly at great range. "The dread of our sharpshooters is very great throughout the whole Rebel army," observed the *New York Herald* on 15 May 1862. Even Winslow Homer, the Civil War artist who drew a popular sketch of a Union sharpshooter in a tree, was no admirer. He confessed to a friend in 1862, "The above impression [a sketch of crosshairs over a human shape] struck me as being as near murder as anything I ever could think of in connection with the army, and I always had a horror of that branch of the service."

Harper's Weekly declared that sharpshooters "take the risk of being cut off by cavalry, or executed, as they certainly would be, if taken." Another observer thought them "not likely very often to be taken prisoners, as death is considered their just penalty; for as they very seldom are in a position to show mercy, so, in like manner, is mercy rarely shown them."

"What are we to do with these wretches?" asked the *Charleston Mercury* on 31 March 1862, referring to Berdan's Sharpshooters. "I answer, as Jackson did at Manassas when told that the enemy was driving us back. 'We give them the bayonet, sir—the bayonet!'"

"I hated sharpshooters," announced one Civil War veteran, "both Confederate and Union, and I was always glad to seen them killed." His was not a rare sentiment.

Nor was a sharpshooter's fear of capture unfounded. During the Peninsula Campaign, the *New York Herald* disclosed that when Private Joseph Durkee, a missing Berdan Sharpshooter, was found:

"His head was riddled by a dozen bullets. The presumption is that he must have been shot after being killed, as a gratification to the fiendish hatred entertained toward our sharpshooters, who, through their watchful vigilance and unerring rifles, have worked such terrible destruction in their ranks."

A month later, soldiers of the 5th Wisconsin killed a Rebel soldier carrying Durkee's missing Colt rifle, returning it to Berdan's Sharpshooters.

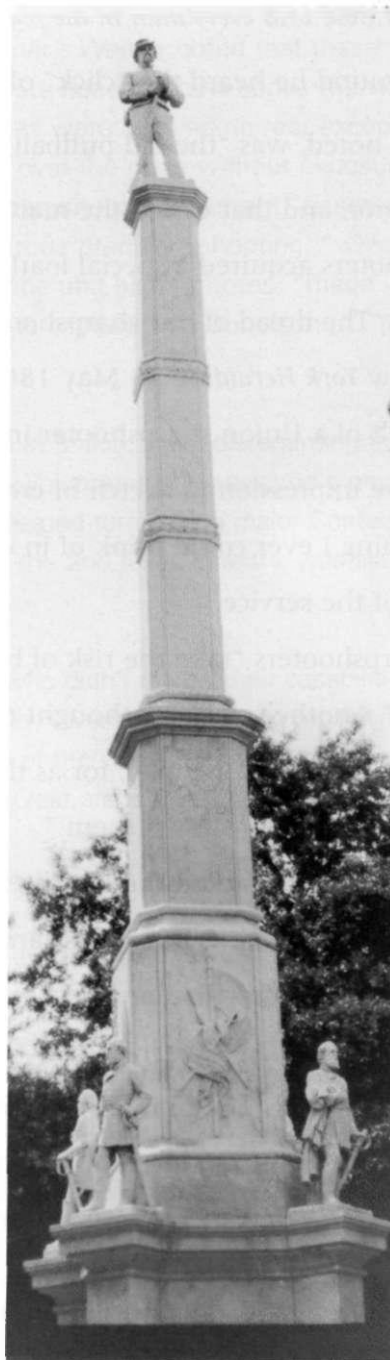
Confederate sharpshooters, too, thought it hazardous to surrender to Union soldiers. At Gettysburg a captured Rebel marksman was certain he'd soon be shot—until, relieved, he learned his

captors were his Union counterparts, Berdan's men.

CONFEDERATE SHARPSHOOTERS REORGANIZED

More than half the Civil War had passed before sharpshooting became an object of significant interest to the Confederate Army's leadership, which until then had left such issues to individual brigade and regimental commanders. Following the setbacks of 1863—Gettysburg in the east and Vicksburg in the west—and their army's declining strength, the importance of sharpshooting came to the fore. In modern terms, the sharpshooters' potential as a "force multiplier"—inflicting considerable damage on the enemy at a proportionally small investment—received proper regard.

Early in 1864, General Robert E. Lee directed the 36 infantry brigades in his Army of Northern Virginia to organize formal



Quite likely the only monument to an individual Confederate sharpshooter, this towering figure of Georgia marksman Berry Benson overlooks downtown Augusta, Georgia. Below are Generals Robert E. Lee, Thomas R.R. Cobb, William Henry Walker, and Andrew Jackson.

sharpshooter battalions, drawing together each regiment's finest rifle shots. This worked out to one company of sharpshooters, about 50 men, per regiment, with usually a five-company battalion per brigade. This did not always prove to be the case. The 13th Virginia Infantry Regiment could muster only about 20 picked men as sharpshooters, while reflecting a larger brigade of seven regiments, Major William Dunlop's South Carolina sharpshooter battalion had almost 250 marksmen. In the case of Captain Robert F. Ward's sharpshooters, drawn from the 42nd Mississippi Infantry Regiment, this meant simply "one sharpshooter for every ten men present for duty."

Despite such differences, for the first time there was a degree of uniformity in Southern sharpshooter units, with command-level emphasis on selecting the best soldiers and properly training them so they'd be ready for the spring 1864 campaign.

One Newspaper's Crusade

Following the catastrophic deaths of CSA Generals Ben McCulloch and James McIntosh at Elkhorn Tavern and the "grievous" losses of Confederate officers just weeks later at the Battle of Kernstown, the *Charleston Mercury* used its editorial pages to urge the South to field units of specially trained sharpshooters. The *Mercury* correctly speculated on 27 March 1862 the following:

"It will be found, sooner or later, that the Yankees have organized in each army a band of practiced sharpshooters, whose business it is, with long-range rifles, to pick off the officers. By means of telescopic sights, this can be done at a great distance, and where the sharpshooter himself is entirely out of danger. All he has to do is to put his rifle at rest, adjust his telescope, and shoot down officer after officer."

A month later, on 1 May 1862, the *Mercury's* editors followed up, observing in a frustrated tone:

"There is no excuse for the absence of a regular corps of sharpshooters from our armies. We have an abundance of the finest marksmen in the world, men practiced in the use of the rifle from early boyhood. Here was one advantage over the enemy. He had to train his, keep them long in camps of instruction, and practicing daily from rests. And yet they have the start of us, and have reaped murderous advantages. Still, we can beat the enemy in this game. The number of crack shots in our armies vastly outnumber his, and, besides being more intrepid, they have no equals at offhand firing. With these three very decided advantages, if even now we organize companies of sharpshooters, we can, as before remarked, beat the enemy in this game."

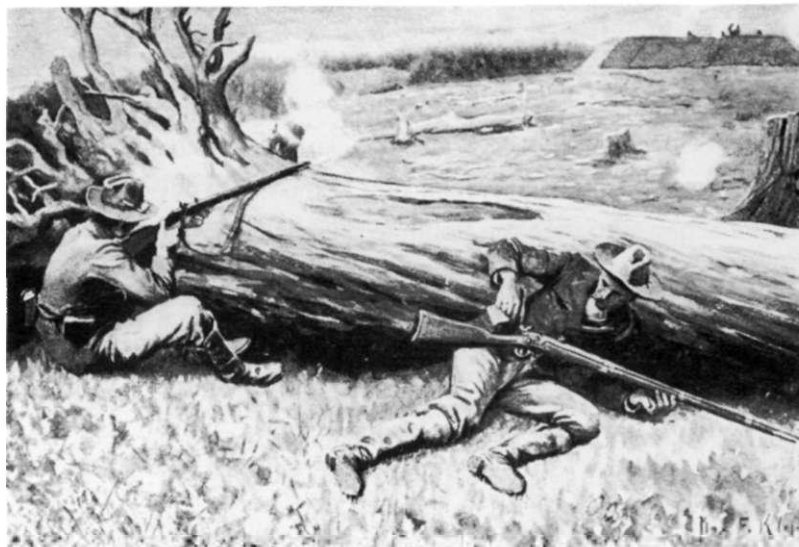
Though many such fine riflemen indeed existed in Confederate ranks and they often were employed as sharpshooters, the *Mercury's* call for actual units of specially selected sharpshooters would go unheeded for two full years, until the spring of 1864.

Major Dunlop, author of an excellent postwar history (*Lee's Sharpshooters*), detailed his men's range estimation training:

"A man or an object the size of a man was stationed in front at an unknown distance, about 100 yards off; at the call of each name, the man stepped forward ten paces, surveyed carefully the object in front, calculated the intervening space, and deliberately announced in exact figures his estimate of the distance . . . then the next in the same way, and so on through the entire command. The distance was increased from one hundred to two, three, five and nine hundred yards, and an accurate account kept of each man's judgment in each drill . . . until each man could tell, almost to a mathematical certainty, the distance from any given point . . ."

Those who could not master range estimation were returned to their units.

Equally demanding was marksmanship training. Beginning at 100 yards and firing into a 5-inch



Above: Confederate sharpshooters pick off Union soldiers manning a defensive work, 1862.



Right: Confederate Major William S. Dunlop commanded a South Carolina sharpshooter battalion.

bull's-eye, the sharpshooters shot at progressively greater distances until, at 900 yards, the target was 6 x 6 feet with a 45-inch bull's-eye. Despite the South's persistent shortage of powder and projectiles, the sharpshooters fired untold amounts of ammunition. "A thousand or more of them were banging away for hours," wrote sharpshooter battalion commander, Major Eugene Blackford, "until my head would ache from the noise and the smell of the saltpeter." Georgia sharpshooter Berry Benson noted that this practice firing integrated range estimation, "for it is essential to a soldier to know how far his enemy is from him in order to adjust his sights properly."

With practice Dunlop's men became so proficient, he wrote, that "the results achieved in estimating distance and rifle training were as amazing to the brigade commander as they were gratifying to the officers and men of the battalion."

Trained and ready for combat, the South's newly organized sharpshooter battalions would strike a mighty toll starting that spring of 1864.

CIVIL WAR

SHARPSHOOTER WEAPONS AND EQUIPMENT

Though it would be considered an incredible thing today, during the Civil War, a reenlisting Union sharpshooter often was allowed the privilege of bringing his rifle home on leave. Friends and relatives were free to handle and fire it, although in most cases this was not an exotic weapon. Indeed, on both sides the most frequently employed sharpshooter weapon was the standard army rifle, most often the 1861 Springfield for Union troops and the British Model 1853 Enfield for Confederate soldiers. Due to recurring rifle shortages, however, it could have been either rifle.

Both were 9 1/2-pound muzzleloaders that incorporated adjustable sights,

fired via a percussion cap, and shot Minie ball projectiles. In the hands of a competent infantryman, either rifle was capable of hitting a silhouette-size target at 250 yards; in the hands of a true marksman—such as a sharpshooter—firing prone or from support, the range might double. But there were enough nuances between the two rifles that they did not perform identically at greater distances.

The Union Army's mainstay, the 1861 Springfield, was a reliable 56-inch-long workhorse with a 40-inch barrel in .58 caliber. Its considerable length was thought to make it a better weapon for bayonet fighting and confronting mounted cavalymen. More than 1.5 million Springfields were manufactured in the North.



Union sharpshooter Charles Rice holds an octagon-barrel, heavy target rifle. (Courtesy of the Archives of Michigan.)

An estimated 900,000 Model 1853 Enfield rifles made it past Union blockade ships to reach the hands of Confederate soldiers. The Enfield's barrel and overall length were 1 inch shorter than the Springfield's. The Confederate rifle's 530-grain Minie bullet left the muzzle at about 900 feet per second, roughly 50 feet per second slower than the Union rifle's 500-grain slug.

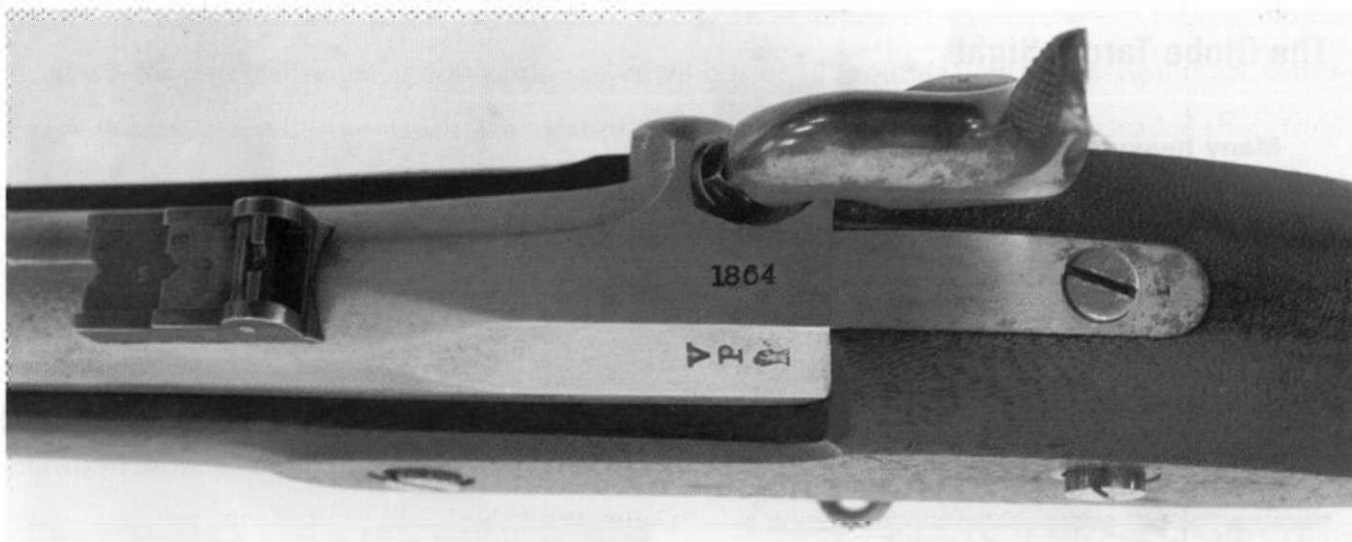
The most significant differences arose in their sights. While both had similar sight planes—that is, the distance between the front sight blade and rear sight—the adjustments were not similar. The earlier Springfield Model 1858 had sported a highly adjustable rear sight with a ladder-style crossbar allowing adjustments to 900 yards, which was simplified for the Model 1861. Thus Union soldiers (and some sharpshooters) had Springfields with crude, flip-up rear sight blades for shooting 100, 300, and 500 yards. What was a Union



The Union Army's mainstay, the Model 1861 Springfield rifle.



The British Model 1853 "three-band" Enfield saw extensive service as a Confederate sharpshooter's rifle.



The Springfield's crude flip-up sight allowed shots at 100, 300, and 500 yards, with no adjustments for other distances.

sharpshooter to do when a Reb appeared at 365 yards—or 540 yards? He could only hold over or under and hope for the best.

By contrast, his Confederate counterpart, firing an Enfield rifle, knew what to do. His rifle sported flip-ups for fast firing at 100, 200, 300, and 400 yards, and an adjustable ladder-style sight to a maximum of 900 or even 1,250 yards, depending on the model. This advantage was not a minor one, for, as any long-range shooter eventually realizes, *you cannot shoot more precisely than you can aim*.

Confederate sharpshooters went out of their way to fire only genuine Enfield .577-caliber Minie bullets—not .58-caliber Union rounds—which gave them better consistency from shot to shot. Such consistent performance from one shot to the next, they saw, was essential for achieving the greatest accuracy. Indeed, the Enfield-armed Rebel sharpshooters with Mahone's Brigade exclusively employed English-made slugs. "We never used any ammunition made by the Confederate government," wrote Captain John E. Laughton, General William Mahone's sharpshooter commander.

By most accounts and tests, the Enfield outshot the Springfield. In a side-by-side shoot-off, Confederate Major William Dunlop fired the British Minie rifle, the Enfield, the Springfield, and the 1841 "Mississippi Rifle," along with Austrian and Belgian guns. He concluded that while "each of them proved accurate and effective at short range, the superiority of the Enfield rifle for service at long range, from 600 to 900 yards, was clearly demonstrated, both as to force and accuracy of fire." The farthest the others could be replied on, Dunlop concluded, was 500 yards.

Firing a properly maintained Enfield, the 1860's British infantryman was expected to hit man-size

The Globe Target Sight

Many heavy-barreled Union sharpshooter rifles and Confederate Whitworths were not outfitted with scopes. A shortage of optical sights and their relatively high cost—\$20 or more—compelled many sharpshooters to rely on globe target sights. And just as some rifles were called “telescope rifles” for their sighting system, these rifles were dubbed “globe rifles” or “globe-sighted rifles.”

Actually, this term is a bit of a misnomer because “globe” refers only to the front sight, a short tube containing a fine peep or blade for exact aiming. The hood—like a modern rifle’s hooded front sight—was designed to eliminate reflections and allow a crisper image for aiming. Some globe sights incorporated an integral spirit level so the shooter could watch its shifting bubble to make sure he wasn’t canting—that is, he was not tipping the rifle down-right or down-left, which could cause his bullet to deviate right or left from his point of aim.

The accompanying rear sight was just as important. It was called a “tang” sight because it fit into the tang, the metal extension from the barrel that anchors it to the buttstock. The front globe sight could be drifted right or left in its dovetail during zeroing, but all the other fine adjustments for windage and elevation were accomplished using the tang sight. After achieving a solid zero, the sharpshooter minutely adjusted for each shot using micrometer-like tang sight adjustments, allowing precise shooting at long-range.



A precision globe sight with aiming insert atop a Whitworth barrel. Note the quality of the machining and the distinctive six-sided Whitworth rifling.



A highly adjustable tang target sight on a Warner under-hammer percussion rifle. (Courtesy of Robert Fisch.)

targets half the time at 500 yards. The inventor of England's improved Minie bullet, R.T. Pritchett, firing at a 7-foot circular target at 500 yards, scored 98 hits of 100 rounds fired. These results are consistent with a 1971 test during which American rifleman Jac Weller fired 15 carefully loaded shots from an antique Enfield at 400 yards, scoring 13 hits into a 72-inch square target.

Two other factors, although unquantifiable, contributed to any rifle's long-range accuracy in the hands of a Civil War sharpshooter. The first factor was the rifle's quality of manufacture. Reflecting lower production rates and closer attention to detail, prewar or early-war rifles were better made than the later guns, meaning the rifling was crisper, the trigger smoother, the sight adjustments a hair more precise. Because they were hurried along in manufacturing, odds were that mid- and late-war rifles saw quality decline. In addition, the British Enfields were hand-finished, while the Springfields were not.

The second factor was the sharpshooter's familiarity with his rifle's idiosyncrasies. Had he mastered its distinct trigger pull? Did he know to "hold" it tight or loose? How true was his sight at each distance? Did he recognize and respect the tiny nuances that contributed to its unique "personality?" For good reason there's an old saying about riflemen: "Fear the man who owns only one gun." A sharpshooter who fired the same rifle, day-in, day-out, under all sorts of conditions—and heeded these experiences—learned to master his weapon in tiny but important ways that could not be taught in any class.

Such a man was Frank Bass, an Enfield-armed Confederate sharpshooter with the 7th Tennessee Regiment in Archer's Brigade. When a hidden Union sharpshooter shot several of Brigadier General James J. Archer's soldiers, Bass deliberately searched for him with binoculars until finally he spotted him "in a dense tree, protected by its body." An eyewitness recalled watching Bass "loading his Enfield carefully" and then stalking to an advantageous spot. "At the crack of Bass' gun," he continued, the well-concealed Union man "fell from the tree." On another day, it was Bass who was targeted and killed by "a long range shot" from a Union sharpshooter near Petersburg.

TELESCOPE RIFLES

As in Frank Bass' demise, when called on to make an especially long shot, a Union sharpshooter could swap his day-to-day rifle for a heavy-barreled, scoped rifle, referred to in the 1860s as "telescope rifles"—or in sharpshooter slang "artillery, as the boys call them."

There was no standard heavy rifle. The most common one, manufactured by Morgan James,



The Morgan James "telescope rifle," the Union Army's tack-driving, long-range sharpshooting rifle. (Courtesy of the West Point Museum.)

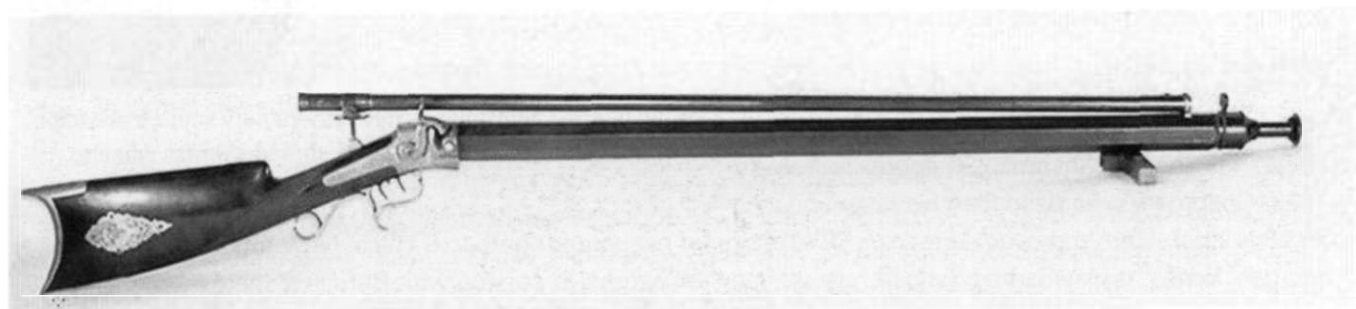


The Morgan James trigger, lock, and scope elevation wheel display as much precision as the rifle itself. (Courtesy of the West Point Museum.)

incorporated a thick, octagonal barrel, typically weighing 30 to 32 pounds. In 1860, a Morgan James target rifle cost \$95 with scope and reloading tools. The .50-caliber Morgan James rifle belonging to New York sharpshooter J.C. Nobel, displayed at the Infantry Museum at Fort Benning, Georgia, fitted with a barrel-length telescopic sight, weighed only 13 pounds. A variety of Northerners built similar rifles, such as R.R. Moore of Courtlandt Street in New York, whose .52-caliber target rifle had a heavy 30-inch barrel. Although primarily producing pistols, Colt, too, hand-built heavy-barreled target rifles in .54 caliber, weighing nearly 23 pounds. The heaviest sharpshooter target rifle I've come upon is the Abe Williams heavy bench rifle, which weighed an astonishing 57 pounds.



Displayed at the Fort Benning Infantry Museum, this .50-caliber telescope rifle belonged to Private J.C. Nobel of Company G, 1st Battalion, New York Sharpshooters.



A precision 1860s target rifle built by S.C. Miller.

Virtually all the Berdan Sharpshooter heavy rifles were privately owned, brought along by volunteers who eventually learned there was nothing to the government's promise of \$60 reimbursement for each target rifle. Bitterly, some sharpshooters laughed that "USSS" stood for "Unfortunate Souls, Shrewdly Sold."

Once the U.S. sharpshooters were issued Colt rifles, their heavy target weapons were collected and stored in the unit wagon train. "The giving of these telescopic rifles but few of which were now carried . . . was in the nature of a mark of honor," explained the Berdan unit history, "as the sharpshooter thus armed was considered an independent character, used only for special service, with the privilege of going to any part of the line where in his own judgment he could do the most good."

Civil War Rifle Scopes

The first major wartime use of the rifle scope, which in the 1860s was still a fairly new invention, occurred during the American Civil War by both Union and Confederate sharpshooters. What became the telescopic sight had begun about 50 years earlier as a lengthy tube down which a target shooter aimed. However, this “aiming tube” contained no lenses, only a crosshair made from fine wire or pig bristles. Eventually one version of the aiming tube would mature as the “globe sight,” which is addressed elsewhere in this chapter.

Aiming through a magnifying lens can be traced back much further, to 1641, when a spider’s web appeared in the telescope of William Gascoigne, an amateur astronomer. Gascoigne found it an excellent reference line for measuring heavenly bodies and soon was manufacturing them—but for astronomers, not riflemen.

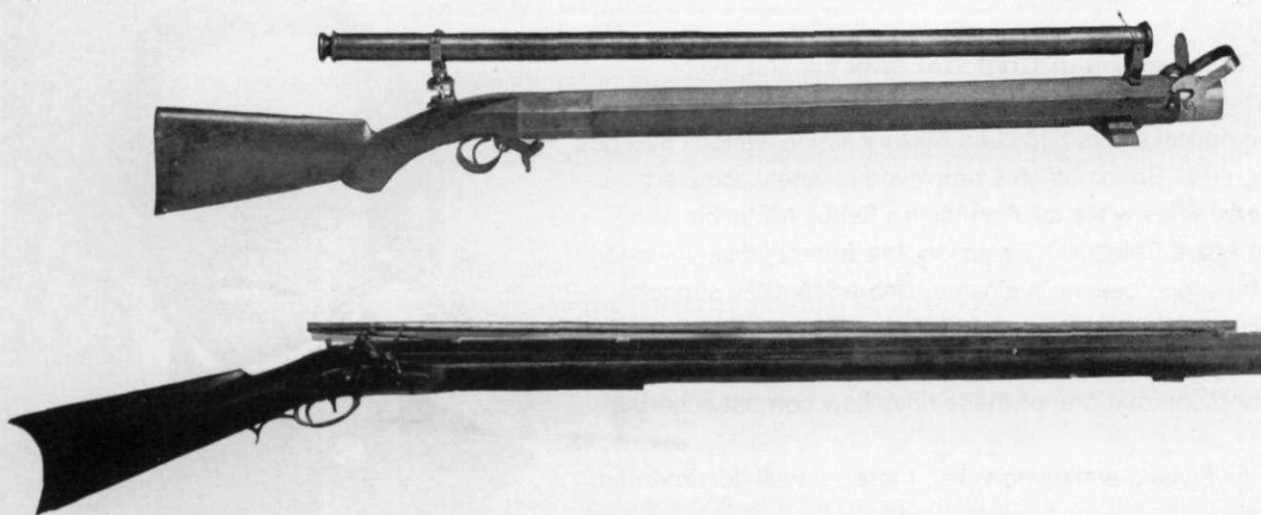
The first American inventor to put magnifying lenses into a tube with a crosshair for aiming a rifle was John R. Chapman, in approximately 1835. Chapman, who described his invention in an 1844 book, *The Improved American Rifle*, assigned his patent rights to a Utica, New York, rifle builder, Morgan James. It was James, whose heavy rifles saw extensive service with Berdan’s Sharpshooters, who put the first true rifle scopes into production. Another major scope maker of that era, William Malcolm of Syracuse, New York, also had optical sights on some sharpshooter rifles. Costing about \$20 apiece with mounts, these mostly were low powered, probably on average 3x, but some, it is claimed, were 20x. Nearly all had brass tubes running the full length of the barrel.



Lacking internal adjustments, this 19th-century scope’s elevation and windage are controlled by finely threaded brass wheels.



Although it resembles a scope, this is an 1820s “aiming tube” on a flintlock target rifle.



Brass-tubed, barrel-length scopes atop 19-century target rifles: (top) a Warner under-hammer percussion rifle; (below) a Pennsylvania flintlock match rifle.

Other than a focus knob, there were no moving parts, with all adjustments external, in the mounts. The front mount often was hinged, while the back mount contained fine adjustments for elevation and windage, usually as brass wheels or screws. In many cases, as in the photograph on the previous page, this rear mount was a rod and wheel assembly that passed through the buttstock at the pistol grip. Simple but effective, it shifted the entire scope slightly to shift the crosshairs.

Most optically fitted Confederate Whitworth rifles used the British-made Davidson Telescopic Rifle Sight, which may have predated the Chapman-James scope. Its inventor, British Army Lieutenant Colonel D. Davidson, claimed to have used his scope in India in 1835 "with singular success against the antelope on the Plains of the Deccan." Some 14 1/2 inches long with a 15/16-inch steel tube, the Davidson scope was mounted on the Whitworth receiver's left side, requiring Confederate sharpshooters to adopt a somewhat awkward body position when firing. Further, Whitworth sharpshooter veteran Stan C. Harley relates, the scope's eye relief—the distance a shooter must hold his eye to see clearly through the scope—was so short that that the scope often smacked the shooter's eye and, "the 'kick' being pretty hard, bruised the eye." British engineer William Ellis Metford soon fixed this problem by modifying the lens arrangement to widen eye relief "and so to escape damage from recoil."

Despite such early shortcomings, Lieutenant Colonel Davidson enthusiastically advocated his scope's use, writing, "Rifles fitted with telescopes would be of great value in rifle pits, in dislodging bushfighters, and in keeping down the fire of artillery."

To the uninformed, rifle scopes must have seemed a miraculous innovation that would make any rifleman a perfect marksman. The reality, however, was well expressed by a Berdan Sharpshooter who observed, "The crosswires within tremble so easily, that it requires a steady hand to hold the cross on the mark . . ." Yes, accurate shot placement still relied on the man behind the rifle, not a mechanical device.

The First Scoped Rifle Engagement

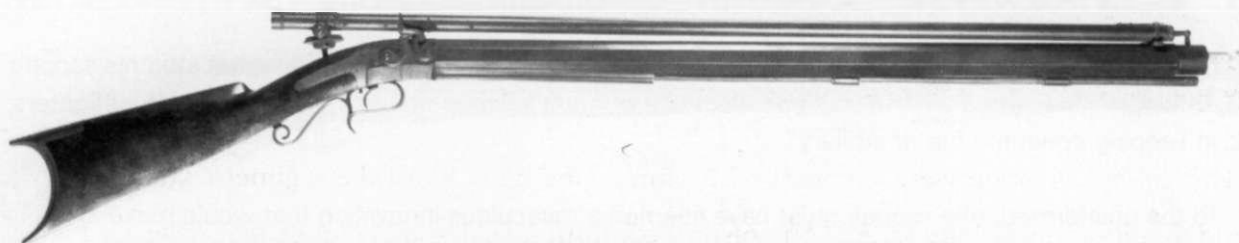
The American Civil War saw the first major wartime use of rifle scopes, but it was probably not the first time optical sights had seen military action. Various sources allege that British officers employed privately acquired scoped rifles while quelling India's Sepoy Mutiny in 1857. Lieutenant Colonel D. Davidson, the British officer-inventor of the scope bearing his name, circumstantially supports this possibility, reporting in 1865 that British officers in India had his scopes 15 years earlier. I have yet to find actual documentation that one of these rifles saw combat action.

Five years earlier, however, there's a well-documented account of a Wesson target rifle being fired with dramatic effect in New Mexico. This short engagement, in June 1851, was fired at long range, although there's no specific mention of the type of sight on the heavy-barreled rifle. Trouble arose when a U.S. Boundary Commission Survey Team, escorted by Lieutenant Amiel Weeks Whipple and a detachment of soldiers, encountered a party of Apache raiders. Giving chase, Weeks and his men found themselves delayed by a rear guard whose leader took delight in exposing his buttocks and mocking them. The warrior, a Mangas Coloradas Apache named Delgadito, thought he was beyond rifle range; what he did not know was that one of Lieutenant Whipple's men, a teamster named Wells, was a superb shot, and he had a heavy-barreled Wesson target rifle. Taking careful aim, Wells fired, placing his shot exactly where he intended, causing "an unearthly yell and a series of dances and capers that would put a *maitre de ballet* to blush." Lieutenant Whipple and his men must have chuckled for some time. There is, however, more to this story.

Twelve years later, midway in the Civil War at the Battle of Chancellorsville, this same lieutenant was a hardened veteran and wore two stars on his collar. On 4 May 1863, Major General Whipple, now a division



Amiel Weeks Whipple was present at the 1851 scoped-rifle engagement; 12 years later, as a Union major general, he appeared in a Rebel sharpshooter's scope.



A scoped Wesson target rifle, similar to that fired in June 1851 at a hostile Apache, quite possibly history's first scoped rifle engagement.

commander, was called over by General Daniel Sickles and told to bring in the Berdan Sharpshooters to silence a squad of Confederate sharpshooters who had been suppressing the Union artillery.

Sitting atop his horse, Whipple was writing the order when a single long-range bullet struck him, throwing him to the ground. Arriving on the scene, a detachment of Berdan's men returned fire and were credited with shooting "five of the [Rebel] sharpshooters," including the one suspected of having shot General Whipple.

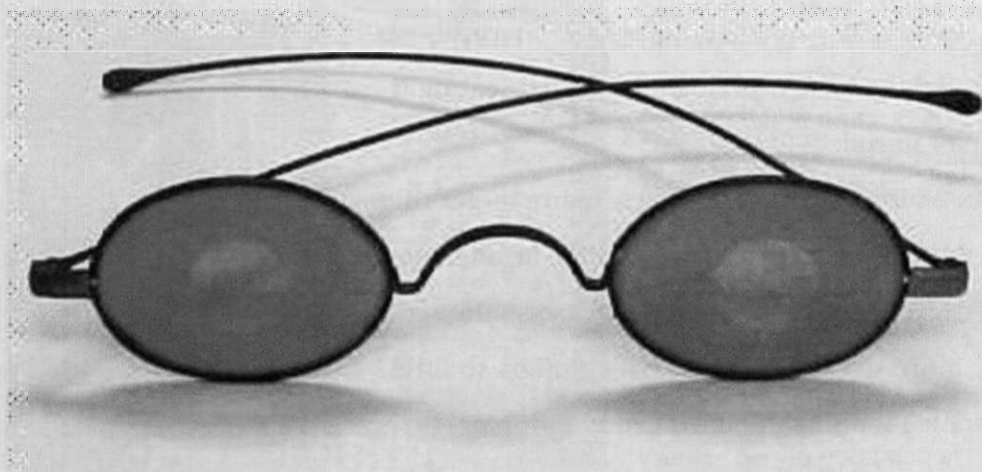
But it was too late. For Whipple—the officer who had overseen what was probably the first long-range scoped rifle engagement in history—had died at the hands of a distant sharpshooter.

Sharpshooter Glasses

Some Civil War sharpshooters wore a peculiar optical aid to assist their shooting: orthoptic spectacles. Although they resemble ordinary shaded sunglasses, on closer inspection it's apparent that only the center of each lens allows a clear view, while the rest of the lens is cloudy or dulled.

"The principle of the orthoptic is the focusing of the field of vision before it reaches the lens of the eye," explains a 19th-century shooting guide. "The advantage is better definition, especially of the fore-sight and bull's-eye." You can test the effectiveness of this yourself by punching a tiny hole through a piece of paper and looking through it, which should yield a crisper view than with normal eyesight. Orthoptic glasses were especially useful, it was believed, when firing a globe-sighted rifle.

The U.S. Army's Infantry Museum at Fort Benning, Georgia, includes in its collection a pair of these unusual spectacles, used during the Civil War by Private J.C. Nobel, a Union sharpshooter, whose rifle also is on display.



Orthoptic glasses allowed a Civil War sharpshooter to better focus his eyes. Note the clear lens centers.

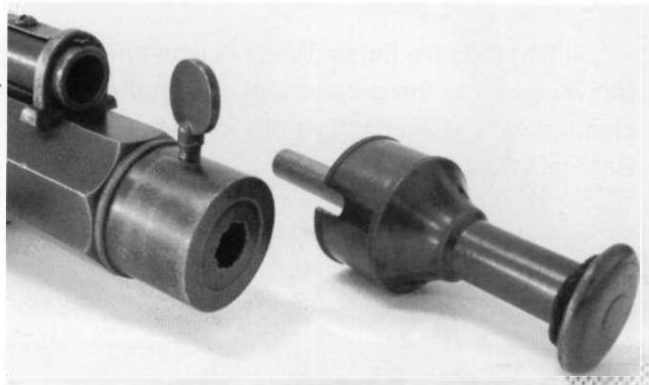
"The 'telescopic' men were supposed to perform the fine work of the regiment, such as making close [difficult] shots at long range," the history continues, "using their telescopes to make objects dim to the naked eye, perfectly plain and distinct, and some exciting specimens of marksmanship was the result."

FIRING THE HEAVY RIFLES

The great accuracy of heavy rifles resulted as much from deliberation in loading as in precise aiming and firing. Supplied with each rifle was a “false muzzle,” a severed section of the original barrel—about 4 inches long—that precisely aligned to the bore with four projecting metal pins. When loading, this false muzzle was attached to protect the crown—the edge of the rifling where the bullet exits—to preclude even the tiniest nick from degrading accuracy by disrupting the bullet’s passage. The false muzzle also ensured that the tight-fitting projectile entered the rifling straight and true when the sharpshooter tapped it in using a plunger or small mallet. Once the bullet was a couple of inches into the rifling, the sharpshooter removed the false muzzle and finished seating it with a ramrod.

In addition to false muzzles, many target rifles had double, or “set,” triggers. In this arrangement, one trigger is actually a lever that “sets” the second, more sensitive trigger, which offers so little resistance that it can be tripped with a hair—a “hair trigger.” The belief was that a rifle requiring only the slightest touch to fire imparted no movement from the shooter’s finger and thus fired more accurately.

As far as accuracy, there’s no question that these were the most accurate rifles of their day. In 1859, Morgan James personally shot a 25-round



Many heavy rifles required a false muzzle (left) to ensure that the bullet aligned with the rifling and a mallet (right) to force it down. Reloading was cumbersome and slow.



Some heavy sharpshooter's rifles employed open, or “globe,” sights, like this Andrews Sharpshooter's long-range rifle. (Image from the Military and Historical Image Bank.)

Precision Shooting with a Globe Sight

Just how accurate were Civil War sharpshooters' rifles when fired with globe sights? Historic accounts make all sorts of claims, some credible but many more not credible at all. Part of the difficulty in assessing accuracy is that modern standards for shooting and methods of measurement simply were not followed then. For instance, 150 years ago most target shooting was fired at 40 rods (220 yards), and groups were measured differently than today. U.S. and British government evaluations, too, had their own way of recording bullet impact—"deviation" it was called—which does not translate well.

I must thank the West Point Museum's former curator of arms, Robert Fisch, for assisting my research via his own .451-caliber under-hammer percussion rifle, believed built by Horace Warner, a

Berdan Sharpshooter veteran. Although of conventional rifling, the Warner gun fires projectiles that are three times as long as their width, exactly as advised by Joseph Whitworth in 1855, and uses a globe front sight and tang rear sight. Fisch competed with this hexagonal-barreled rifle as a member of the United States International Muzzleloading Team from 1976 to 1983, earning world and international championships, as did his wife, Barbara.



Robert Fisch and his wife, Barbara, with their .451-caliber Warner target rifle and their championship 100-meter targets, fired with a globe sight. (Courtesy of Robert Fisch.)

And thanks to their experience, we can see what can be achieved with a 19th-century .451-caliber rifle using a globe sight. Fisch put the Warner gun to good use at the 1980 World Championships, winning the Gold Medal for the aptly

named Whitworth Match, with a score of 94 out of a possible 100—fired prone, with globe sight, at 100 meters (110 yards), using his own mechanically fitted bullets. Three years later he bettered that at an international match, scoring 98 out of 100; while at another match his wife, firing the Warner rifle, scored a 97. As you examine their photo, keep in mind that the 10 ring measures 1 15/16 inches, and I think you'll agree that a globe-sighted sharpshooter rifle was fully as precise a weapon as any scoped Civil War rifle, the only difference being magnification.

demonstration at 220 yards, with all 25 shots impacting within 1.4 inches of dead-zero, meaning a 2.8-inch-wide group. That same year in another demonstration, James fired nine shots at 110 yards, yielding a group measuring just 0.38 inch—virtually one ragged hole.

Similarly, the first annual National Rifle Club's competition in October 1859 was won by Mr. T. Spencer, also firing 50 rounds from a heavy-barreled target rifle at 220 yards, which yielded a 2.16-inch group. In a 600-yard demonstration of his personal scoped target rifle—apparently a Morgan James—Colonel Hiram Berdan “put five consecutive shots within the ten-inch ring.”

Even President Lincoln tried out a heavy target rifle, belonging to Private Harrison Peck of the 1st U.S. Sharpshooter Regiment, during a September 1861 visit to the Berdan's training camp. “Abraham Lincoln handled the rifle like a veteran marksman,” reported the *New York Herald* and told onlookers, “Boys, this reminds me of old time shooting.”

The upside of these heavy rifles was their accuracy, but there were downsides, too. Private William Fletcher, a superb Confederate marksman, after looking over his division's heavy rifles, reckoned he did not want one, announcing, “I would not accept one if offered, for I did not think they were a good brush gun or one that could be dragged around on a crawl.” Union sharpshooter Captain Charles Stevens agreed on the heavy rifle's limited usefulness, explaining, “The muzzle-loading target rifles—telescopic and globe-sighted—while of great value before fortifications and for special work, would have been useless in skirmishing.”

With their tight tolerances, these heavy rifles also proved more temperamental than other weapons, especially their susceptibility to black powder fouling. Accuracy declined after only four or five rounds, and a few rounds later it became difficult to force balls down the fouled bore. Indeed, even when freshly cleaned, these rifles offered a rate of fire slower than a Kentucky Long Rifle. That reality led to disaster on 17 September 1861, at the Battle of Antietam, where two companies of Massachusetts sharpshooters were armed solely with heavy target rifles. Unable to reload quickly, 26 sharpshooters were cut down in a single day.

THE COLT REVOLVING RIFLE

Realizing that these heavy rifles were not suited to everyday skirmishing and scouting, Colonel Berdan sought a more appropriate weapon. Thus as a stopgap until better rifles were available, his two sharpshooter regiments were armed with the Colt Model 1855 revolving rifle, a .56-caliber five-shooter,

looking like a stretched cap-and-ball revolver. Weighing 10 1/2 pounds with a 37 1/2-inch barrel and overall length of 55 inches, the Colt revolving rifle was 1 inch shorter than the Springfield.

Bureaucratic inertia delayed acquisition of the Colt rifles, mostly due to the chief of ordnance, General James W. Ripley, an obstinate old man who refused to consider acquiring any weapon except the standard Model 1861 Springfield, of which he'd been the greatest advocate. President Lincoln finally had to countermand Ripley, ordering, "Let it [the purchase] be executed at once."

Originally produced in 1836, the Colt rifle is surrounded by many exaggerations. The 1864 book *Hints to Riflemen* claimed this Colt rifle was accurate to 680 yards, while another book, *The Rifle and How to Use It*, praised it as "the best military arm" produced up to that time. Neither claim was even close to the truth.

"They were five-chambered breech loaders, very pretty to look at, but upon examination and test they were found inaccurate and unreliable, prone to get out of order and even dangerous to



Private Chauncey Maltby, Company B, 2nd U.S. Sharpshooters, with his Colt Revolving rifle.

the user," wrote sharpshooter Wyman S. White. Berdan's men appreciated the benefits of a breechloading, five-shot repeater, but loading was a slow, tedious process, requiring each of the five chambers to be loaded separately.

A clear summary of its shortcomings is contained in a letter from sharpshooter Theodore Preston, who observed, "[First] it is too light for the size and weight of the lead [projectile]. Second, when the ball leaves the cylinder and enters the barrel, there are small shavings of lead [that] escape from between the cylinder and the barrel, and fly six or eight feet, endangering a

person." And, according to another sharpshooter, "there was some danger of all the chambers exploding at once." One man lost a thumb and forefinger to an exploding Colt rifle.

Still, that five-shot capacity could come in handy. On one occasion a handful of Colt-armed sharpshooters warded off a large Confederate assault by the *sound* of their five-shooters rapidly firing, giving the impression that the Rebs had tangled with a much larger force.



The .56-caliber Colt Model 1855 revolving rifle, a temporary Berdan Sharpshooters' weapon. (West Point Military Museum.)

THE SHARPS RIFLE

Hiram Berdan's Sharpshooters used those Colt rifles only about six months while he arranged for a more capable, permanent weapon. His final decision undoubtedly was influenced by Sergeant Truman "California Joe" Head, who had purchased a Sharps Model 1859 rifle from a company sales representative in September 1861. Once California Joe was sold on its favorable qualities, it took little to convince Berdan that the Sharps was the best rifle for his men.

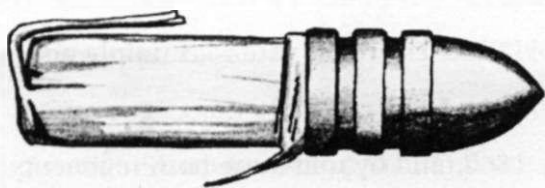
Employing a falling or sliding block action (operating a bit like a lever gun), the breechloading, .52-caliber Sharps rifle used bullets wrapped in linen or paper cartridges, making it extremely fast to load. It weighed 8 3/4 pounds and measured 47 inches overall with a 30-inch barrel, and typically fired a 350-grain bullet. (Contrary to what you may have heard, the word *sharpshooter* does not come from this rifle. That term had existed for 100 years, long before the rifle's inventor, Christian Sharps, was born.)



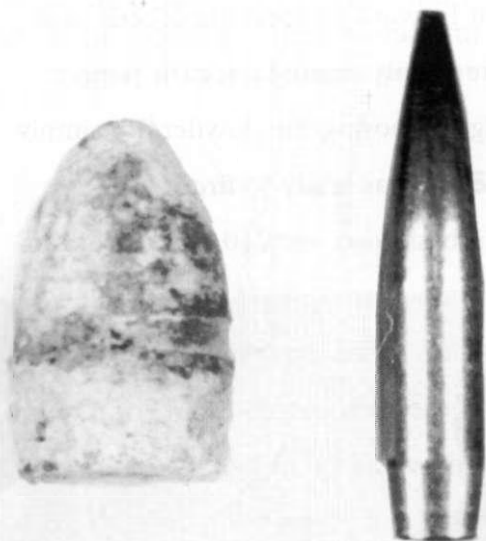
The Sharps action and set triggers. Rotating downward, the trigger guard opened the breech for inserting a combustible paper cartridge.

As with the Colt rifle, Berdan had to request the Sharps through the chief of ordnance, General Ripley, renowned as "the father of the muzzle-loading Springfield rifle." Ripley refused the request. Then Berdan sent California Joe and his Sharps rifle to Secretary of War Simon Cameron and followed up with a letter, telling Cameron, "The men as well as myself feel that with these weapons we can not only make a name for ourselves but be of vast service to the country."

Even with Cameron's approval, the obstinate General Ripley stalled, causing a New York newspa-



Treated with potassium nitrate, the paper-wrapped .52-caliber Sharps cartridge was quick to load and totally consumed in firing.



A recovered .52-caliber Sharps bullet, found at Gettysburg, alongside a modern .308-caliber, 168-grain, boattail hollowpoint.

per to note, "Sharps rifles were promised to them by the President and ordered by General McClellan, but some trouble in the War Department has thus far prevented them getting them." Eventually the rifles were ordered, and afterward the crotchety General Ripley, famous as the ordnance chief "who combated all new ideas," was forced into retirement.

The Sharps rifle version delivered to the U.S. Sharpshooters incorporated several significant modifications requested by Berdan. First, he eliminated the bayonet lug on the barrel, which probably enhanced barrel harmonics and also conveniently precluded his men being called on to assault like line infantry. The single trigger was replaced with a set-trigger system, and the standard rear sight was replaced with a finer one offering precise adjustments to 1,000 yards. The complete rifle cost \$42.50—more than twice the price of a Springfield.

The only Civil War accuracy test I've found for the Model 1859 Sharps involved five rifles firing linen-wrapped cartridges. At 500 yards, these rifles scored 24 hits of 25 rounds fired, but the report didn't cite the target's size. More recently, a black powder shooter,



A typical Sharps breechloading rifle with set triggers. This rifle was used by Berdan Sharpshooter George Albee, who was later awarded the Medal of Honor for an Indian Wars action. (Courtesy of West Point Museum.)

Andy Moe, extensively tested carefully wrapped .52-caliber paper cartridges in a reproduction Sharps carbine. Moe's 2004 test, fired at 30 yards from a sandbag rest, produced five-shot groups measuring 1/2 to 3/4 inch, which would equate to about 1 1/2 inches at 100 yards—certainly accuracy worthy of a sharpshooter.

Berdan's men received their first Sharps rifle in mid-May 1862, and by mid-June both regiments were fully armed.

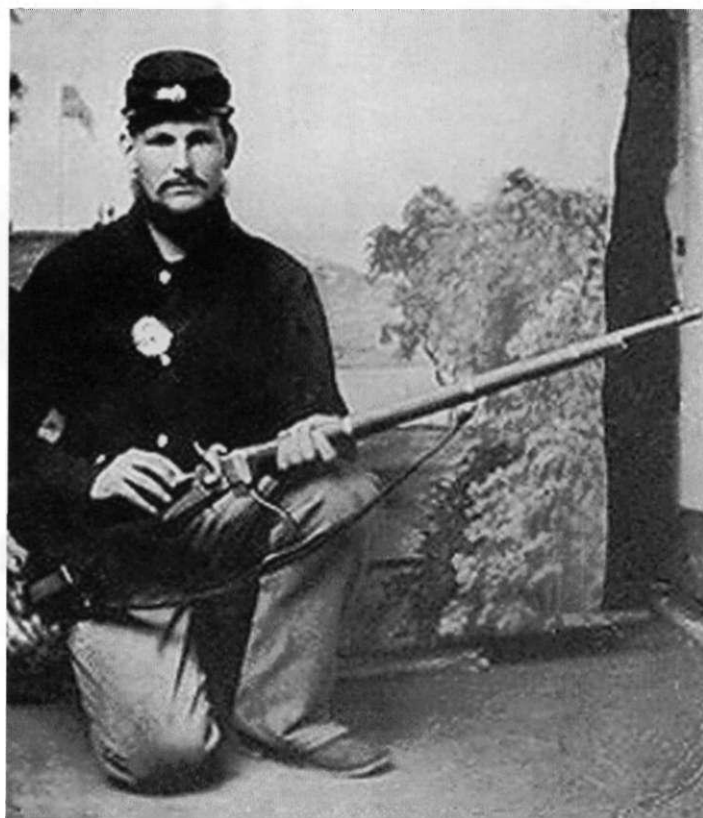
The Sharps Rifle in Action

The Sharps rifle proved fast to load and reliable to operate. To load, the sharpshooter grasped the extended trigger guard—which operates as a lever—and swung it forward to open the breech and allow a paper- or linen-wrapped cartridge to be inserted. Then he simply rotated back the trigger guard to both close the action and cut off the back of the cartridge, exposing the powder. By simply cocking the hammer and sliding a percussion cap over the nipple, he was ready to fire.

Each sharpshooter carried sixty .52-caliber paper cartridges as his basic load, with 10 rounds per cardboard package, which included 12 percussion caps. The paper or linen wrappings were combustible, having been treated with potassium nitrate, leaving minimal residue in the chamber.

If the sharpshooter was hurried, he could fire immediately by pulling the rear of the two triggers. For more deliberate shots, he first pulled the forward trigger to set the rear trigger, reducing it to a "hair" trigger—ready to trip with a slight touch.

The Berdan version of the 1859 Sharps proved a superb sharpshooter's and skirmisher's rifle. Because it was a breechloader, the shooter did not have to ram a rod down the muzzle, allowing him to load efficiently while lying behind cover. Further, the combination of prewrapped combustible cartridges and self-



Proudly posing with his Sharps rifle, Private William Henderson served in Company K, 1st U.S. Sharpshooter Regiment.

priming enhanced his rate of fire; in fact, a sharpshooter could fire up to 10 aimed rounds per minute, about triple the rate of a muzzleloader. Add to this the Sharps' quality, adjustable sights and set triggers and it made for a very effective weapon.

"The possession of these rifles," concluded sharpshooter Wyman White, "made every man in the regiment a Sharpshooter, in fact, and the men with their little Sharps made their mark wherever and whenever they came in contact with the Rebels."

This is borne out by Colonel William F. Fox's authoritative *Regimental Losses in the Civil War*, which concluded:

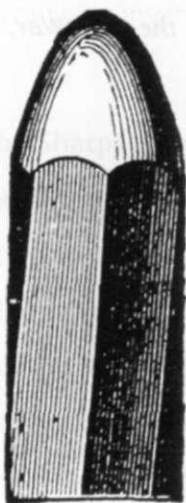
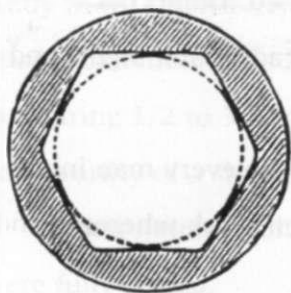
"Berdan's United States Sharp-Shooters . . . were continually in demand as skirmishers on account of their wonderful proficiency as such, and they undoubtedly killed more men than any other regiment in the army. In skirmishing they had no equal."

THE LEGENDARY WHITWORTH

Of all the Civil War sharpshooter's weapons, none equals the British-made Whitworth rifle—for quality, accuracy, or reputation. And all of it is deserved.

From the hand-etched checkering on its stock to the buffed finish on its metal parts and the crisp precision of its micrometer-like adjustable sight, this rifle exudes confidence in its ability to place shots. Function-wise, it was hardly different from other muzzleloaders but for one feature: its unique, innovative projectile, a .451-caliber, six-sided bullet, actually a reverse image of the bore's hexagonal rifling (as seen on page 142).

Joseph Whitworth, a British mechanical genius, believed the Enfield rifle's .577-caliber Minie ball was "inefficient." After considerable research, he determined that a projectile's ideal proportions were a length three times that of its diameter. Long before the terms "sectional density" and "ballistic coefficient" were bandied about, Whitworth had determined that a javelin-shaped bullet was superior to stubby Minies. Thus, although both the Enfield .577-caliber and Whitworth .451-caliber bullets weighed 530 grains, the Whitworth "bolt" was three times longer and spun considerably faster with its rifling rate of one rotation per 20 inches. The implications for cutting through wind, for retaining velocity, for flat trajectory—they were all there. To Whitworth's disappointment, however, the British Ordnance Board rejected his superbly accurate rifle because it was less than .50 caliber and thus dubbed a "small bore" unsuitable for military use.



The lengthy 530-grain Whitworth projectile, three times its diameter, and its distinctive six-sided bore.

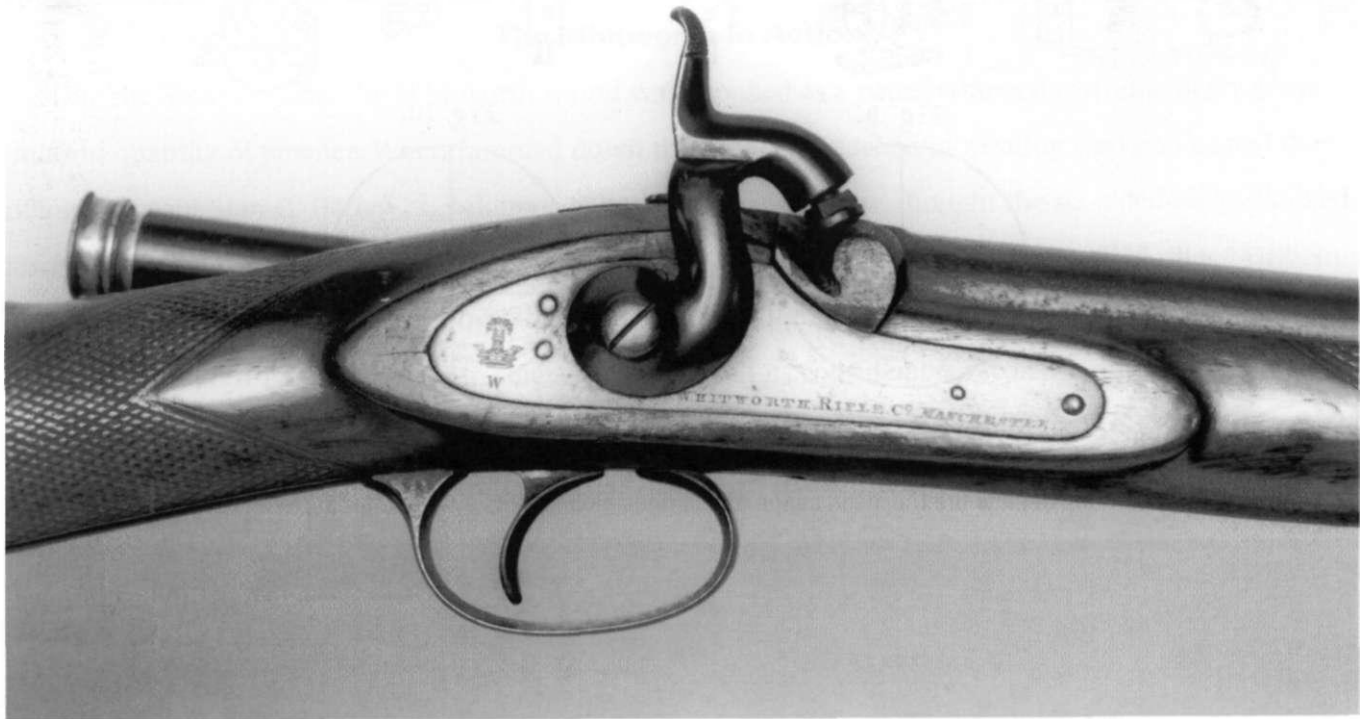
A hexagonal Whitworth bullet alongside a .52-caliber Sharps Minie ball and a modern .308-caliber 168-grain boattail bullet.



Although marked "Manchester Ordnance and Rifle Company," this is a .451-caliber Whitworth with a tang rear sight.



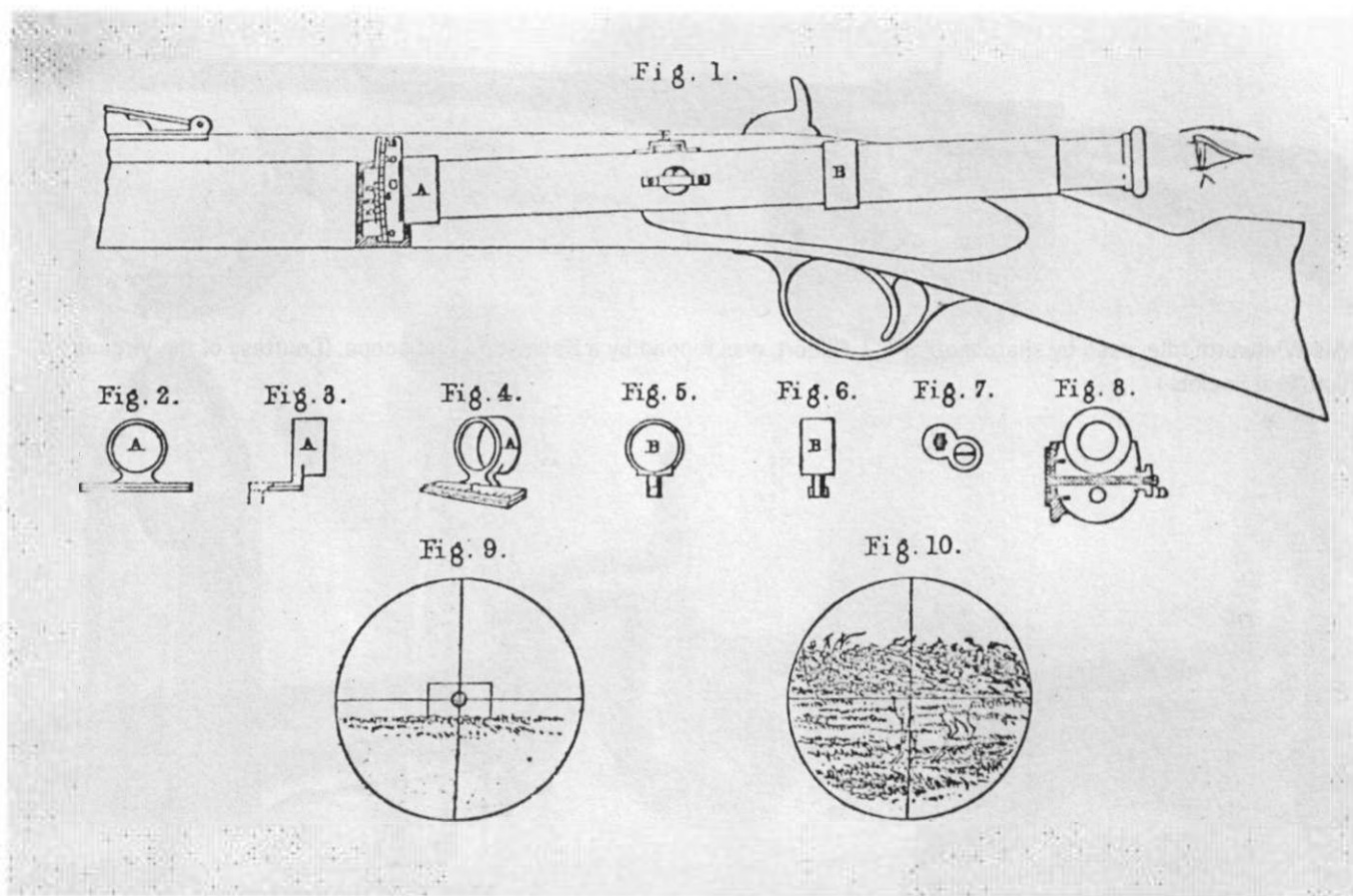
This Whitworth rifle, used by sharpshooter E.J. Gilbert, was topped by a Davidson's rifle scope. (Courtesy of the Virginia Historical Society.)



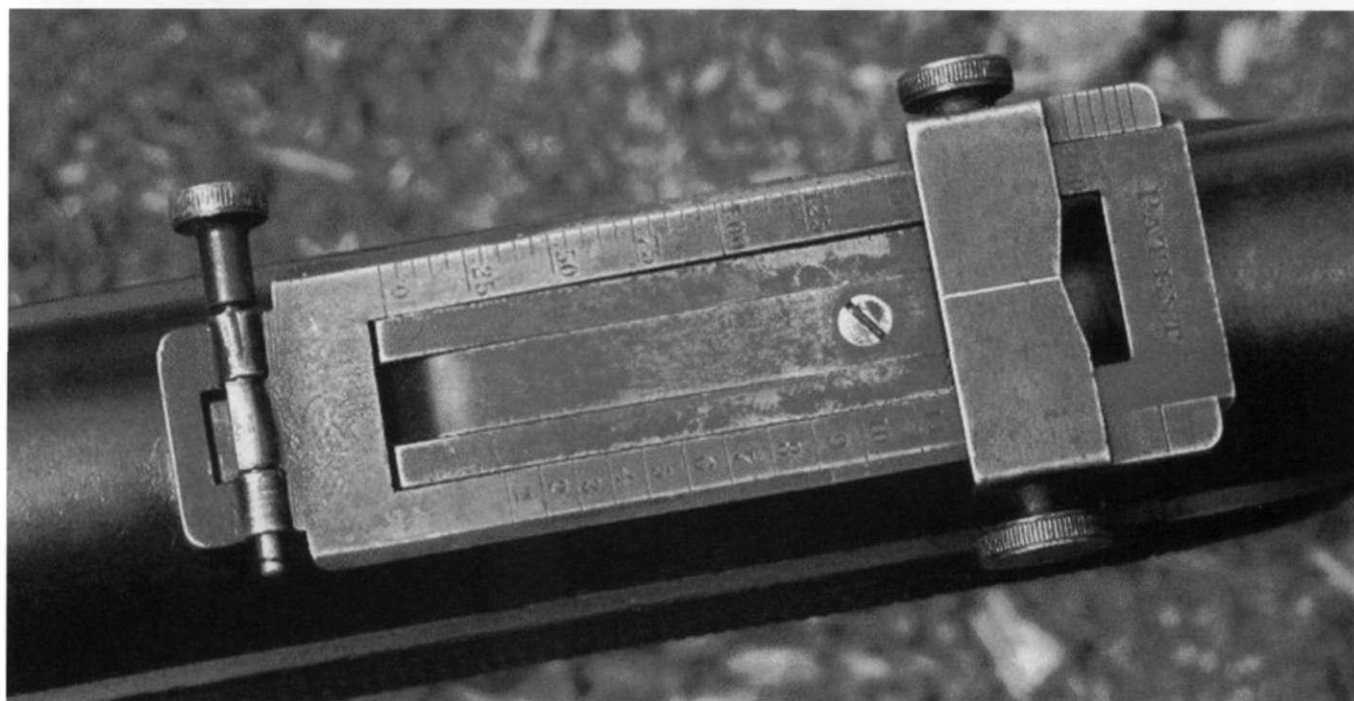
The Davidson rifle scope, visible on the left side of the receiver, required a peculiar body position. (Courtesy of the Virginia Historical Society.)

Undeterred, Whitworth put it into production as a target rifle, and that is what it was when discovered by Confederate arms purchasers in 1861. Despite its price—up to \$1,000 with a Davidson scope and 1,000 rounds of ammunition—a handful were purchased and shipped to the South aboard a blockade runner. So impressive was their performance that a steady but small supply of Whitworth rifles reached the Confederate Army throughout the war. Some Whitworths, produced on license, bore the name “Thomas Turner Co.,” while late-war rifles were labeled “Manchester Ordnance and Rifle Company,” reflecting a reorganization of the Whitworth firm.

All sported a 33-inch barrel with 48 3/4 inches overall length and a weight (without scope) 1



This 1865 British illustration depicts the Davidson scope and various globe sights available for the Whitworth rifle.



A precision Whitworth rear sight with hundredths-of-inch adjustments and ladder-style settings to 1,200 yards.

ounce short of 9 pounds, a half-pound lighter than the Enfield or Springfield. The rifle's tapered bore started at the breech, measuring .490 inch, and then tightened at the muzzle to .451 inch.

Many Whitworths were issued without scopes, but the rifle's excellent rear sight allowed surprisingly exact aiming. Since it was precision-machined from steel, its micrometer-like adjustments clicked off elevation in hundredths of an inch, while (alternately) the shooter could raise its crossbar using the other side of its scale to quickly elevate to 1,200 yards. Still other Whitworths came with target-style globe front sights and vernier rear sights, which offered even more precision.

The Whitworth in Action

Like the Sharps round, the Whitworth round was supplied as a paper-wrapped cartridge to ensure a uniform quantity of powder. When rammed down the bore, an attached lubricating wad also coated the rifling. Sergeant Stan C. Harley, an Arkansas Whitworth sharpshooter, thought the six-sided bullet "looked fearfully long by the side of the short .58 caliber Minie bullet of the Enfield and Springfield rifles." Driven by a powder charge of "at least one hundred grains," the 530-grain Whitworth slug approximated the weight of a modern 12-gauge shotgun slug, so stories about its considerable recoil are no exaggeration.

The terminal effect of Whitworth's streamlined heavy bullet was phenomenal. In British tests, fired at 307 yards, this bullet penetrated 33 half-inch elm planks, while a Sharps .52-caliber bullet cut through 18 boards and an Enfield just 15 boards.

And when it came to accuracy, there was simply no comparison with any existing military rifle. In 1857 trials at Britain's Hythe School of Musketry, a Whitworth and an Enfield Model 1853 each fired 10 rounds from a mechanical rest at 500, 800, 1,100, 1,400, and 1,800 yards, recording the "average of divergence." Unlike measuring groups today, this meant measuring how far each round impacted from dead-center and then averaging the total impacts. For example, when one bullet impacted 2 inches from center, and the next hit 4 inches from center, the average divergence for the two was 3 inches. The Hythe results were as follows:

AVERAGE DIVERGENCE (INCHES)

	500 Yards	800 Yards	1,100 Yards	1,400 Yards	1,800 Yards
Whitworth	4.4	12	29	55	139
Enfield	28.8	49	96	No Hits	No Hits

As was noted in 1857, the Whitworth at 1,100 yards was as accurate as an Enfield at 500 yards. Analyzing these figures, I noticed that the Whitworth group widened disproportionately with range, increasing from less than 1 minute of angle (MOA) at 500 yards to 7.7 minutes of angle at 1,800 yards. This reflected, I think, the effect of a bit of crosswind and the lower magnification and lens quality of that era's rifle scopes, not the rifle.

Where it really mattered—in the hands of a sharpshooter, not a mechanical firing rest—the Whitworth demonstrated similar accuracy. A *Charleston Mercury* article of 13 June 1864 reported that a Whitworth-armed sharpshooter was “so skilled that in the presence of that general [Ewell] he put seventeen balls in succession in a space no larger than the hand, at the distance of 500 yards.”

To maintain such accuracy, the rifle required at least a quick swabbing every few rounds, plus a detailed cleaning probably every day.

Due to the Whitworth's high cost and the difficulties of running the Union Navy's blockade, there never was a large supply of these phenomenal rifles. During the Atlanta Campaign, the Confederacy's Army of the Tennessee had but 26 Whitworth sharpshooter rifles out of 49,303 shoulder arms. General Joseph Johnston's army, attempting to ward off Grant's attack on Vicksburg, received just 20 Whitworths. Major General William Bate's division had only one squad of Whitworth sharpshooters, led by Lieutenant A.B. Schell. Georgia sharpshooter Berry Benson's entire brigade possessed just one Whitworth rifle. “It was presented to (Ben) Powell,” he wrote in his diary, “as he was known to be an excellent shot.”

You can only imagine the competition among sharpshooters for these precious few rifles. “We all wanted the gun,” explained

Confederate sharpshooter Sam R. Watkins. “All the generals and officers came out to see us shoot. The mark was put up about 500 yards on a hill, and each of us had three shots. Every shot that was fired hit the board, but there was one man who came a little closer to the spot than any other, and the Whitworth was awarded



A 10-round box of Whitworth paper-wrapped cartridges, as issued to Confederate sharpshooters. (Image from the Military and Historical Image Bank.)

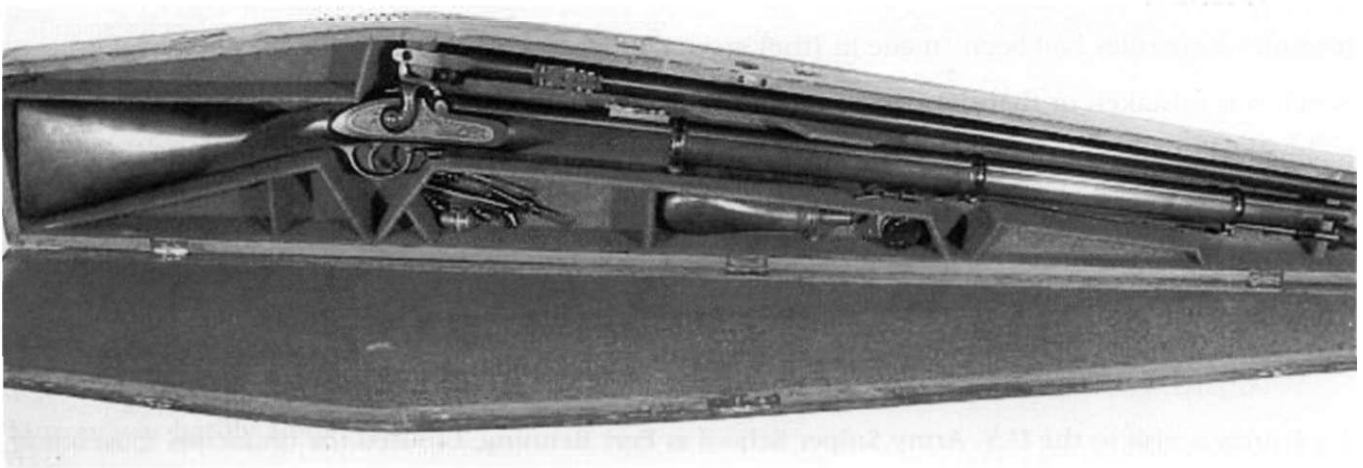
to him." The First Tennessee Regiment conducted a similar shoot-off, with a target 800 yards away. The winner was William Beasley, who put three shots out of five in a man-size target.

"The terrible effect of such weapons," a sharpshooter in General Patrick Cleburne's division wrote, "in the hands of men who had been selected, one only from each infantry brigade because of his special merit as a soldier and his skill as a marksman, can be imagined." Such a soldier was Sergeant John H.W. Terry of the Second Tennessee Infantry, who from the 6 April 1862 Battle of Shiloh until he was severely wounded at Kennesaw Mountain on 20 September 1864, carried and fired a Whitworth rifle through fights and skirmishes too numerous to detail.

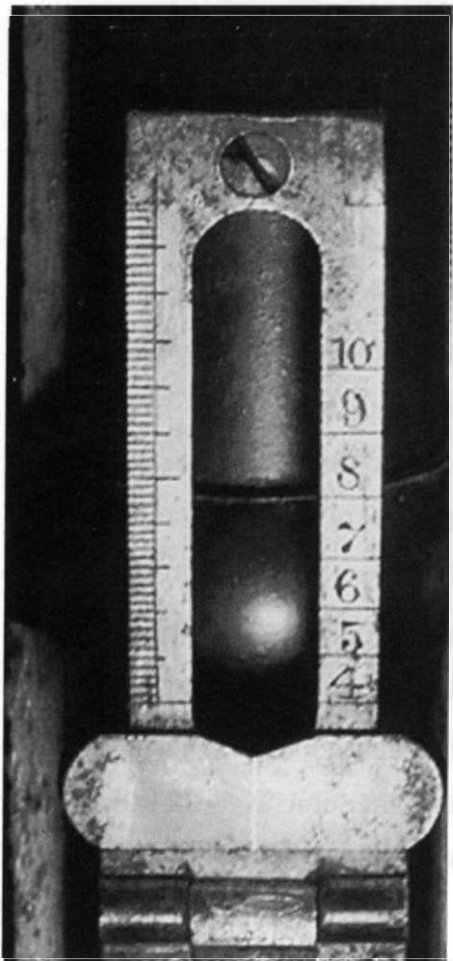
THE KERR SHARPSHOOTER'S RIFLE

Another British muzzleloading target rifle that resembled the Whitworth, the Kerr rifle also saw considerable service as a Confederate sharpshooter's weapon. Designed by James Kerr as a target rifle for shooting 1,000 yards or farther, it was topped by high-quality sights and required special, high-grade gunpowder for top performance. The London Armoury Company manufactured the Kerr.

Of similar .451 caliber (or .466 Kerr caliber), it fired the Whitworth-style elongated hexagonal projectile. A bit longer overall at 53 inches, it employed a slightly shorter barrel. According to Ed Thompson of the Orphan Brigade, the Kerr rifle "would kill at the distance of a mile or more, requiring a peculiar powder; and there was some difficulty in charging it, so that it was not likely to be fully effective except in the hands of a cool and composed man."



A boxed British-made Kerr .451-caliber sharpshooter's rifle, a precision contemporary of the famed Whitworth rifle.



Above: The Kerr rifle's lock resembles the Whitworth's, of which it was a licensed clone.

Left: The Kerr rifle's sight is finely graduated to 1,000 yards.

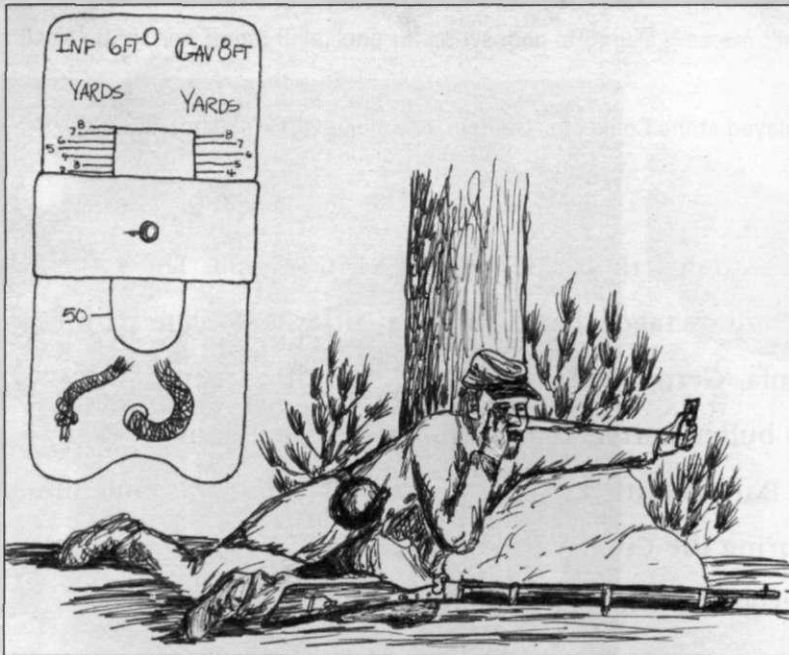
The Kerrs were competed for and issued on a basis similar to the Whitworths, with, for example, 11 Kerr rifles issued to the finest marksmen in the Orphan Brigade for the 1864 Atlanta Campaign. Interestingly, Captain A. Buck Schell, a sharpshooter commander in Cleburne's division, wrote that his unit's Kerr rifles had been "made in [the] arsenal at Macon, Georgia." Some historians believe Schell was mistaken or that these were repaired rifles, but I think he may have been correct, the rifles having been built from imported British-made barrels, locks, and sights. My evidence is found in the Columbus, Georgia, municipal museum and is explained below.

OTHER CONFEDERATE SHARPSHOOTER RIFLES

During a visit to the U.S. Army Sniper School at Fort Benning, I toured the municipal museum in nearby Columbus, Georgia. In a display case, at first I thought I'd found a finely crafted Whitworth rifle—labeled a Confederate sharpshooter's weapon—but I was completely wrong. At the outbreak of

Range Estimation in the 1860s

Several range-measuring devices were invented in Britain in the 1850s. One device featured a piece of brass sheet metal with a wedge cut out of it, along the edge of which were lines indicating distances. Holding this “stadium” device exactly 22 2/3 inches from his eye—accomplished by holding taut a cord of that length—the sharpshooter carefully held the wedge opening over a man until the opening was just as wide as the man was tall, and read the indicated distance. Given the natural variations in human height and the tiny angular differences between, say, a man 500 yards away and another 600 yards away, you can see why it was not considered very accurate. A copy of this device was manufactured at the U.S. Frankford Arsenal during the Civil War.



Holding a stadium ranging device exactly 25 inches from his eye, a Confederate sharpshooter could measure targets up to 800 yards away. (Original art by Tami Anderson.)

Holtzapffel & Company of London manufactured a slightly more refined device (illustrated here), which was issued to some Confederate sharpshooters. Employed similarly to the other stadium (a taut cord held exactly 25 inches from the eye), it measured dismounted and mounted enemy with a sliding bar that more precisely assessed target height. To fine-tune it, the shooter changed the cord length to better fit the length of his arm and eye-sight. This Holtzapffel device could range up to 800 yards, but after 500 yards the increments became so tiny that significant error inevitably arose. Still, it was a step forward from the Revolutionary War, in which the only ranging device was a human thumb held at arm's length.

the Civil War, the Columbus gunmaking firm of Greenwood & Gray employed as lead gunsmith J.P. Murray, who was renowned for building match-grade target rifles. With the coming of war, he turned his efforts to sharpshooter rifles, including the outstanding specimen displayed in the museum. Although of conventional rifling, this Murray rifle proved that the South possessed expert craftsmen capable of building superbly accurate rifles, whether from scratch or from imported parts. And Murray was hardly alone.

In New Orleans, Cook & Brother Manufacturing produced high-quality, heavy-barreled target rifles, offering precision sights and finely tuned triggers. The Morse target rifle, custom



This Confederate sharpshooter's rifle (center), displayed at the Columbus, Georgia, city museum, was handcrafted by J.P. Murray.

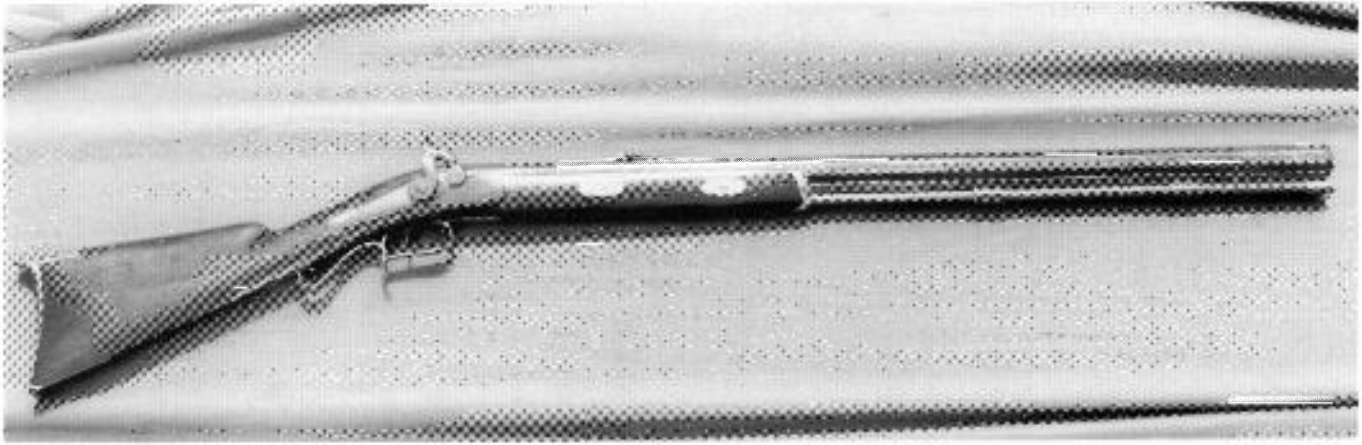
built in Richmond, Virginia, was of such quality that it demanded \$150 in gold. The E.H. Rogers Company in Augusta, Georgia, built octagon-barreled target rifles, complete with double set triggers. In Montgomery, Alabama, German-born master gunsmith Christian Kreutner countersunk his target rifle muzzles as bullet starters and normally installed double set triggers. Another German emigré, George Balzer, settled in Hayneville, Alabama, and built similar high-quality target rifles before and during the Civil War. Phillip Betis of Vickery Creek, Georgia, also constructed custom target-grade rifles that undoubtedly saw service as Confederate sharpshooter weapons.

Though I've not had the opportunity to test-fire any of these custom rifles, I would expect that they proved as accurate as their Northern counterpart "telescope" rifles, making them 1,000-yard guns.

RIFLES OF THE WESTERN SHARPSHOOTERS

Members of the Union Army's other major sharpshooter organization, Birge's Western Sharpshooters, also were issued a rifle unique to their unit. As discussed in Chapter 4, at first this was the Dimick American Deer and Target Rifle, a heavy-barreled muzzleloader. Horace Dimick's St. Louis shop could not handle the huge demand, so several arms makers built his rifle on contract. Eventually, 1,000 Dimick rifles armed the Western Sharpshooters.

Considered a Plains rifle, the Dimick had been around for several years, with a primary role of



The Dimick Deer and Target Rifle, long-range weapon of Birge's Western Sharpshooters. (Photo by Dan P. Fagen.)



Birge's Western Sharpshooters with Dimick Deer and Target Rifles. (Richard F. Carlile Collection.)



Western Sharpshooter Lorenzo Barker's highly engraved Henry rifle is displayed at the Michigan Historical Museum in Lansing. (Photo by Johnny Quirin for *Michigan History Magazine*.)

long-range shooting against large game, especially buffalo. With its heavy octagonal barrel, the gun weighed approximately 12 pounds, although its half stock gave it a sportier look and feel. Some were supplied with double set triggers, but most of those in sharpshooters' hands had a single trigger.

The Dimick sharpshooter's rifle fired a .44-caliber bullet dubbed a Swiss Chasseur, a hollow-based, conical variety of Minie ball popular in Europe and often fired by German target rifles. Another Dimick rifle, popular among adventurers passing through St. Louis to try their stake as mountain men, was bored in .52 caliber.

Lorenzo Barker, a Birge's Western Sharpshooter veteran who authored his unit's history, recalled:

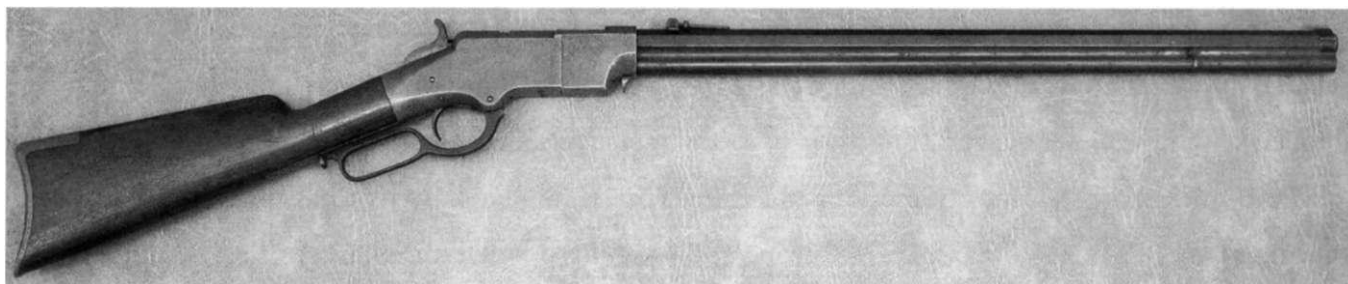
"The [rifle's] accoutrements were not the kind prescribed by army regulations; but, consisted of a bullet pouch of bear skin covering and a powder horn, or in some cases a flask. In the bullet pouch was a compartment where the soldier carried his screw drivers, bullet molds and patch cutter, singular implements for the soldier; but, Birge's boys molded their own bullets, greased them, and patched them with as much care as an old hunter would and used them as effectively."

One Western Sharpshooter, Amariah Spencer, boasted to his family that "our guns will carry from 600 to one thousand yards," while his own rifle fired "1/2 oz. balls and will carry 400 yards with level sites [*sic*]."

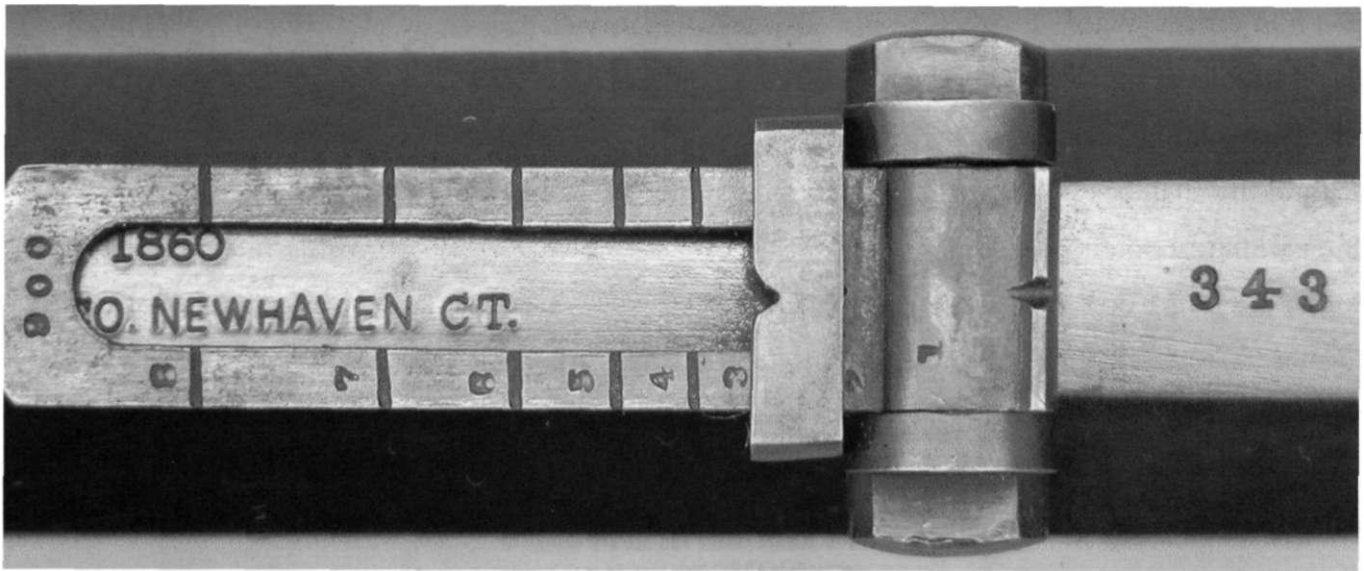
THE HENRY LEVER-ACTION RIFLE

Long-range precision fire was useful, but many Western Sharpshooters found that their most frequent skirmishing encounters were at medium or close range, and only rarely over 200 yards. In such circumstances, the sharpshooters began to realize, their shooting required no more accuracy than an ordinary rifle, while their Dimick rifles' heavy weight and low rate of fire put them at a disadvantage. As skirmishers—which, like Berdan's Sharpshooters, was their most frequent role—they would be better served by a lighter rifle offering more firepower. However, they did not choose the Sharps rifle. Instead, late in 1863 the Western Sharpshooters decided that the Henry lever-action would be an ideal skirmishing weapon.

Just like the Sharps rifle, this weapon choice found no support in the War Department. Instead of trying to politically end-run the chief of ordnance like Berdan had done, however, the sharpshooters found a novel alternative—they reached into their own pockets, anteing up \$42 apiece, *one-quarter of*



The Henry rifle, a fast-firing 17-shooter, was so valued by the Western Sharpshooters that the whole regiment bought their own guns with their own money.



Although its sight was optimistically graduated to 900 yards, the Henry rifle's realistic maximum range was about 200 yards.

a year's pay, to buy the rifles. While the entire Union Army acquired only 1,731 Henry lever guns during the war, the Western Sharpshooters alone purchased 1,000 Henrys.

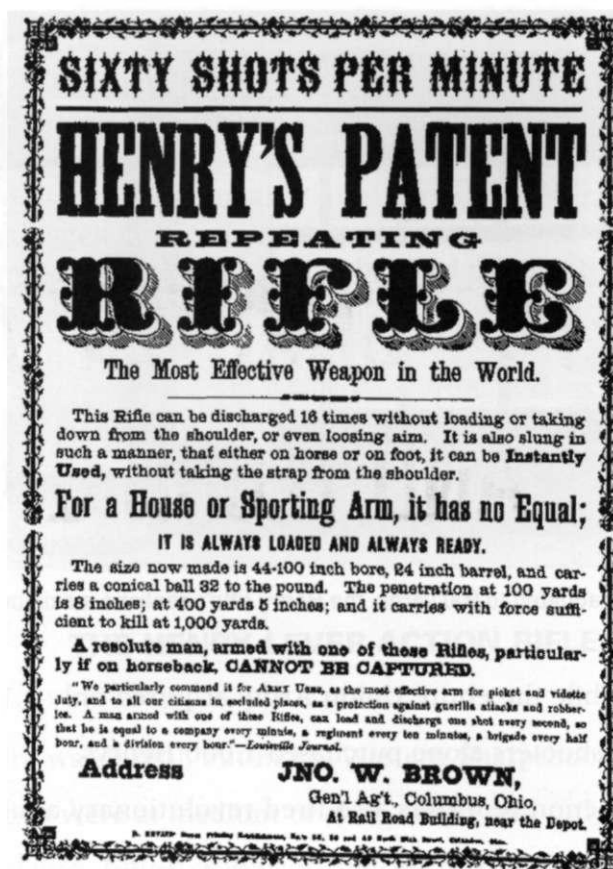
These revolutionary lever-action repeaters also fired revolutionary ammunition—first-generation metallic cartridges, chambered for the .44 Henry rimfire round. Much like a modern .22 Long Rifle round, the .44 Henry cartridge contained an explosive powder folded into its rim that would explode when struck by a firing pin. Since the cartridge was entirely self-contained, the sharpshooter needed no percussion cap, no powder to pour, and no bullet to ram. He simply dropped 16 rounds down the tubular magazine below the barrel and levered the action, and he was ready to fire. Confederate soldiers soon called it “that damned Yankee rifle that’s loaded on Sunday and fired all week.” The Henry rifle weighed 9 1/4 pounds, incorporating a 24-inch barrel with 44 3/4 inches overall length.

The .44 Henry's 200-grain bullet, propelled by 26 to 28 grains of black powder, made it only a moderately powerful round of limited range. Yet its ladder-style rear sight optimistically allowed aimed fire to 900 yards, which caused me to do bit of research. Assuming a 1,050 feet per second muzzle velocity and 100-yard zero, I ran the .44 Henry through my Sierra Infinity exterior ballistics program and found this was not a stellar long-range round. At 500 yards, the Henry's bullet was plunging 486 inches below point of aim—that's 20 feet. Even at 200 yards (using a 100-yard zero), a Western Sharpshooter had to hold his Henry sight 2 feet over his opponent's head to hit him squarely in the chest.

But this rifle wasn't about long-range shooting; it was about firepower, and here the handy Henry

had it in droves. With its 16 rounds in the tubular magazine and a 17th in the chamber, Birge's Sharpshooters found the Henry an ideal skirmisher's weapon, giving them a tremendous advantage for short- to medium-range fights against enemy soldiers armed with single-shot muzzleloaders. So confident was the manufacturer that Henry ads

declared, "A Resolute Man, armed with one of these Rifles, particularly if on horseback, CANNOT BE CAPTURED." The company claimed a firing rate of "sixty shots per minute," but in actual use, especially considering reloading, I'd put the rate more realistically at 32 rounds per minute.



Though unlikely to fire 60 shots per minute, the Henry lever-action rifle nonetheless was a terror against Confederates armed with single-shots.

Not only was this a decisive firepower advantage, but the men behind those rifles—Birge's Western Sharpshooters—had the marksmanship skills and combat experience to make each of those shots count. Such men, engaging a force at 200 yards or closer, could create a virtual wall of lead.

The Henry lever-action did not long survive the Civil War. Soon afterward, Benjamin Henry's rifle company was acquired by Oliver Winchester, who improved the design by

putting a loading port in the receiver and adding a wooden forearm to protect the shooter's hand from the hot barrel—the Model 1866 Winchester was born and later the Model 1873, "the Gun That Won the West."

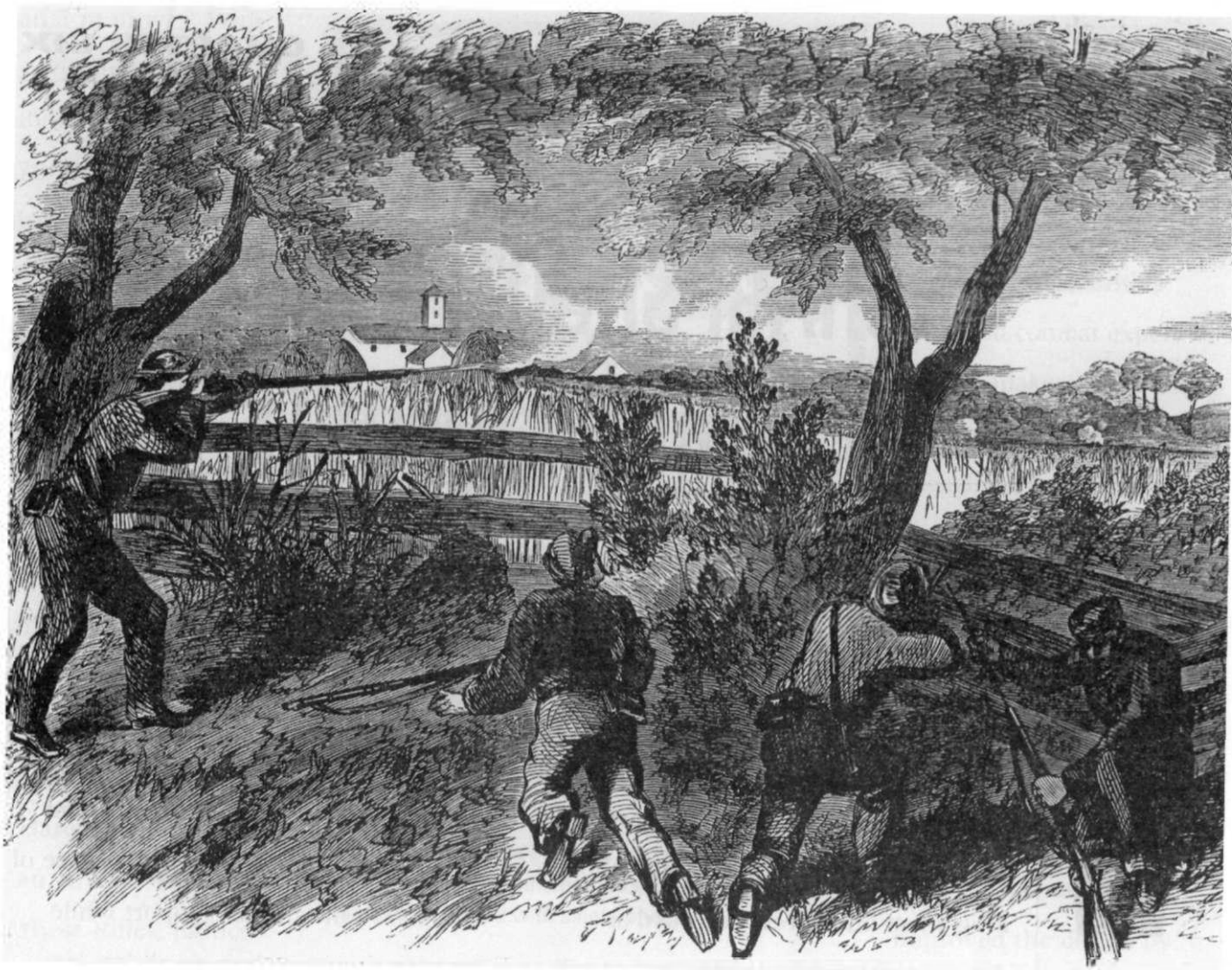
CIVIL WAR

SHARPSHOOTER TACTICS AND TECHNIQUES

supported unit's mission, even sometimes maneuvering as independent four-man squads.

And here was quite a similarity: both Confederate and Union sharpshooters were organized as four-man squads. This achieved a good balance of firepower and mutual support while keeping their numbers small for concealment and stealthy movement. The major exception was the case of true sniper missions, performed by specially selected sharpshooters armed with telescope rifles or Whitworths. These men maneuvered alone or perhaps with a teammate and operated with tremendous latitude. In Hardee's Confederate brigade, the sharpshooter commander was "given only such orders as were so general in their nature that a large dis-

Whether Confederate or Union—Rebel or Yankee—there were great similarities in how Civil War sharpshooters operated and fought. On both sides, sharpshooter units most often were regarded as detachments to be parceled out or split up in direct support of a large unit or spread along a wide front. Many official accounts cite, for instance, "a detachment of Berdan's Sharpshooters, from Whipple's division, accompanied each regiment." Frequently, sharpshooters were dispatched as companies of about 50 to 75 men, who operated in support of a particular regiment. Once under that regiment's control, they were further divided to fit the terrain and the



Both Yankee and Rebel sharpshooters operated as four-man squads.

cretion was allowed him." The same was true of a Union sharpshooter with a telescope rifle, "considered an independent character, used only for special service, with the privilege of going to any part of the line where in his own judgment he could do the most good."

Sharpshooters seldom employed special camouflage. Largely this was a matter of personal choice, with John West, a Confederate sharpshooter, recalling that he and his comrades, when concealed in trees, would "pin leaves all over our clothes to keep their color from betraying us."

Cognizant that a heavy rucksack made stealthy movement difficult, Berdan Sharpshooters carried the lightest possible load. The average knapsack, one veteran estimated, weighed 15 pounds, with 40 rounds of ammunition carried in his cartridge case and another 20 on his back. Add to this, of course, his canteen, rifle, and a few pieces of assorted gear, for a grand total of about 40 pounds.

A Sharpshooter General

No Civil War general so well appreciated and so wisely employed sharpshooters as CSA Major General Patrick Cleburne. From the Battle of Shiloh—where he hastily assembled volunteer marksmen to support Brigadier General Benjamin Prentiss in the Hornets' Nest—to all his future engagements, Cleburne believed in the wise application of precision rifle fire.

An Irishman by birth, he had served three years in the Royal Army's 41st Foot before immigrating to America. Practicing law in Arkansas, he joined the Confederate cause and soon was respected as an inspiring leader and talented tactician, nicknamed the "Stonewall Jackson of the West."

With the encouragement of their division commander, Cleburne's sharpshooters acquired more long-range rifles than any other division—some 26 Whitworths and 10 Kerrs—and put them to good use. A product of the British training system, Cleburne insisted on excellent instruction and constant drills. One sharpshooter recalled:

"The men were drilled in camp, on the march, and even on the field of battle in judging distances. They would be halted, for instance, and required to guess at the distance of a certain point ahead and then measure by steps on their way. When firing, these men were never in haste; the distance of a line of men, of a horse, and artillery ammunition chest, was carefully decided upon; the telescope adjusted along its arc to give the proper elevation; the gun rested against a tree, across a log or in the fork of the rest stick [tripod] carried for that purpose."

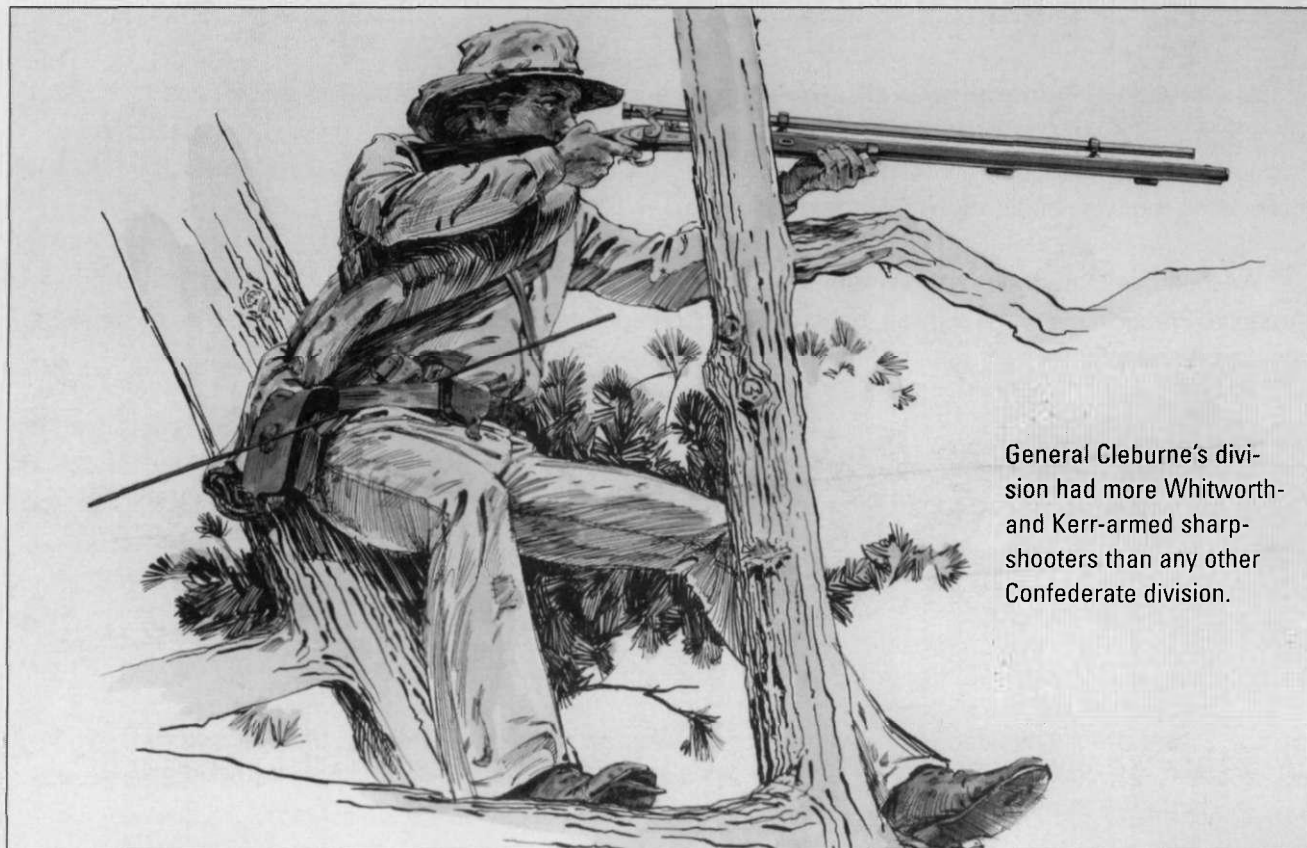
Led by Lieutenant Abraham "Buck" Schell, this tiny band of superb marksmen included up to 30 men, among them Stan C. Harley, Walter L. Bragg, James Griswold, Charles Trickett, Walter Norris, John C. Knox, James Lane, Sam Mizer, John (or George) Decker, John McKinney, John Driscoll, Barney Roark, James Patterson, and Lieurgus A. Saller.

Cleburne was so interested in his divisional sharpshooters that they reported to him or his staff directly for daily instructions and were shrewdly employed to exploit their capabilities to the max. For example, on 26 July 1863, "I had no ammunition to spare," he wrote to his Corps commander, Lieutenant General William Hardee. Therefore, to keep pressure on the enemy while conserving ammunition, he employed five Whitworth sharpshooters, "which appeared to do good service. Mounted men were struck at distances ranging from 700 to 1300 yards."

Never shy about his deepest beliefs, Cleburne pointedly insisted that he never had and never would own slaves, →



Major General Patrick Cleburne, "Stonewall Jackson of the West," was a shrewd employer of sharpshooters.



General Cleburne's division had more Whitworth- and Kerr-armed sharpshooters than any other Confederate division.

and raised Southern eyebrows in 1864 when he advocated emancipating African Americans who were willing to join the Confederate cause. It was too late, however, for both Patrick Cleburne and his cause—he was killed on 30 November 1864 while leading an assault at Franklin, Tennessee.

The First Periscope Rifle

The deadly attentiveness of World War I snipers made it nearly suicidal for a soldier to raise his head above a parapet. Necessity created a novel solution—a periscope mounted on a rifle's butt—so riflemen could aim and fire from safety. Historians pretty well accept that this innovation first saw light in the trenches of Western Europe, circa 1915.

Actually, the periscope rifle dates back at least to June 1864, when Colonel Ellison Capers of the 24th South Carolina Volunteers encountered one near Marietta, Georgia. So impressed was he by this clever device that he had it entered in a regimental report:

"In the fight of the 24th we captured a sharpshooter who had a small looking-glass attached to the butt of his musket, so that he could sit behind his breast-work, perfectly protected, with his back to us, and by looking into his glass, sight along the barrel of his piece."

This periscope probably sprang from one sharpshooter's ingenuity, for nowhere in Civil War records have I found any reference to one, either as a manufactured device or an item issued to sharpshooters.



Tree positions offered good long-range observation and fields of fire, as in this classic Winslow Homer portrayal.



Rarely did sharpshooters camouflage themselves. Here Confederate sharpshooters attempt to conceal themselves in pine boughs.

The Psychological Effect

At crucial moments, the support of friendly sharpshooters could boost morale. Spirits soared in McGowan's Confederate Brigade, for example, after its men had failed in an attack and fallen back feeling defeated, only to hear their sharpshooters take on the Yankee infantry. "The familiar cry of our deadly rifles, reverberating through the forests, fell upon the ears of our comrades of the main line like vesper music at the close of the day," wrote a McGowan sharpshooter, "and contributed materially to the restoration of order."

Usually, however, it was enemy sharpshooters who affected morale, and rarely in a positive way. Beyond their direct military effect and the number of casualties they inflicted, the common soldier found sharpshooters a lethal irritation that he could not fight, a constant, unseen threat that hovered out there, beyond his vision and beyond the range of his rifle.

Professor D.H. Mahan, a West Point instructor, believed "nothing is more dreaded by troops generally than this lurking and often invisible foe, whose whereabouts is only divined by the destruction he deals around him."



"INVITING THE SHOT." Winslow Homer's haunting depiction of a crazed Confederate soldier, driven mad by constant fire, steps atop a parapet, daring Union sharpshooters to kill him. (Courtesy of Virginia Museum of Fine Arts.)

Confederate Brigadier General W.N. Pendleton called Union sharpshooters "an evil not slightly trying" for their lethal efficiency at picking off his artillerymen at the Battle of Sharpsburg. His gun crews could do nothing, Pendleton knew, because the terrain left them vulnerable to long-range fire "by the enemy's effective rifles."

Caught in a similar situation, Captain James Wood of the 37th Virginia Infantry Regiment, complained that "well posted sharpshooters with guns of longer range than our's were very annoying and damaging." Fatalistically, he reported, "Our men were thus picked off here and there with remarkable regularity. In places of such danger good fortune seemed to follow some and bad fortune others."

Rebel infantryman Albert R. Greene, his morale sapped, described how at Lookout Mountain, Tennessee, he and his comrades suffered the misery of unending sharpshooter fire in addition to "cold, fatigue and hunger. . . . It seemed as if our blood was cold and the last spark of vitality frozen within us. At the slightest attempt to make a fire the sharpshooters on the palisades would open on us, and all attempts were forbidden."

This psychological effect grew considerably worse during protracted sieges, like Vicksburg and Petersburg, where well-positioned sharpshooters on both sides harvested lives anonymously, day and night, for weeks at a time. As Winslow Homer so well captured in the accompanying painting, the stress of this unrelenting, unseen danger could drive otherwise disciplined men to madness.

SHARPSHOOTER MISSIONS

The most commonly assigned sharpshooter mission was skirmishing: moving in advance of a larger unit or on its flanks, both as early warning of enemy actions and to "feel out" the enemy's location, size, and activity. While skirmishing, sharpshooters spread out about five paces apart, depending on terrain and foliage, staying close enough to see and signal each other. Usually, this line of skirmishers was about 500 yards forward of the main body, which most often was a regiment.

Distinct from their northern brothers, Confederate skirmishers also saw their role as an elite assault force "to crush the outer lines and admit our columns to the inner lines and strongholds of the enemy," according to Major William Dunlop, a sharpshooter commander. "And when the opposing armies met upon the field it was [the sharpshooters'] duty to open and bring on the fight, or to stand like ushers on the vestibule of battle and welcome our friends in blue whenever they choose to visit our lines."

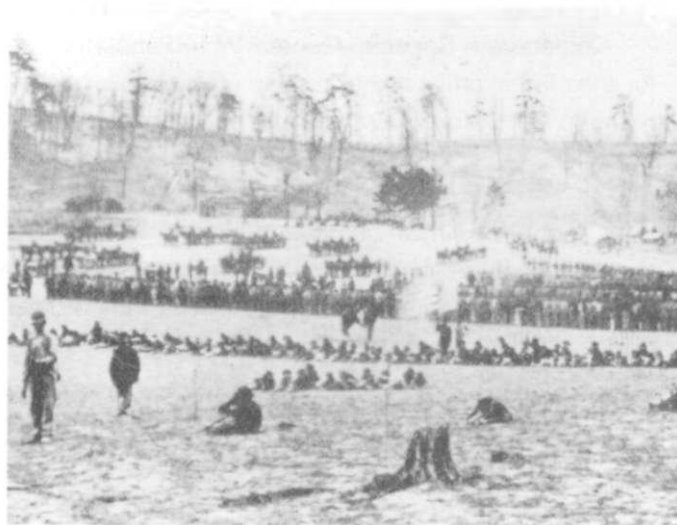
Some sharpshooters were called on to scout—the Civil War version of long-range reconnaissance—as two-man teams. The renowned Georgia sharpshooter Berry Benson and his partner, Madison F. Hawthorn, ran several such hazardous intelligence-gathering missions during the Battles of Spotsylvania and the Wilderness, reporting back directly to General Robert E. Lee. On one occasion

they penetrated a Union encampment, obtained important information, and then escaped by stealing a general's horse. The second time Benson attempted that trick, however, he found himself in a Union POW camp.

Other missions could be multifaceted. For example, for one group of Rebel sharpshooters:

"The general plan was to work themselves at night between the lines, reconnoiter, fix upon a rallying base, and then cover the front of the army, and keep lookout for opportunities to kill off pickets, men who exposed themselves along the line of Federal breastworks, and officers who came in view beyond while directing the operations of their troops. A particular object was to note the position of [artillery] batteries, and take post so as to pick off the gunners through the embrasures."

Using sharpshooters, relentless pressure could be applied on an enemy unit between major battles, lowering morale and denying the enemy rest when he most needed it. For instance, during the Atlanta Campaign, the 33rd Indiana Volunteers, although not in direct contact and simply digging in, suffered unending casualties from hidden Confederate sharpshooters. On Thursday 23 June 1864, the regimental adjutant noted, "Foxworthy, Company H, and Rourke, Company F, severely wounded by sharpshooters." The next day it was "Edwards, Company G, killed, and Farr, Company H, wounded by sharpshooters." And the following day, again, there was "heavy sharpshooting" with "Francis, Company C, badly wounded in the neck." Multiply this attrition by an army's entire front, and these became significant casualties.



An entire Union regiment practices "battle drill," its sharpshooters (prone) acting as skirmishers to "feel" for the enemy.



A major sharpshooter mission was to dominate the area between the lines with their fire.



Operating as long-range scouts, sharpshooter teams sometimes went deep behind enemy lines.



With great stealth, sharpshooters were sometimes called on to infiltrate enemy lines.

Union sharpshooters operated similarly, using their long-range fire to deny Rebel soldiers from observing their positions. Reported the *Richmond Enquirer* in an 1862 article:

“Here the enemy has been for some time industriously at work, defending their operations against observation by a line of sharpshooters. Several of our men, endeavoring to ascertain what is going on in this sequestered vale, have fallen victims to the rifle shots of the hidden foe.”

Due to their sophisticated stalking skills, sharpshooters sometimes were called on for infiltration missions. When Union soldiers in a well-fortified house 100 yards forward of their lines placed effective fire into Confederate positions, an entire company of Rebel sharpshooters was given the mission of eliminating them. Instead of a daylight assault or protracted shooting duel, the Rebs waited for darkness, slipped across the lines, and—in a display of finesse worthy of Sun Tzu, the ancient Chinese strategist—“completely surrounded and quietly captured the entire force consisting of fourteen men

without firing a gun, and returned to our lines before daylight.”

FIRING POSITIONS

While in the defense or between major battles, sharpshooters often occupied rifle pits (that is, concealed trenches or foxholes between opposing lines) from which they could observe and engage the enemy. In the Confederate Orphan Brigade, the rule was never to place a sharpshooter rifle pit

closer than 1/4 mile of the enemy to limit the effectiveness of counterfire. Both Union and Confederate sharpshooters made it a point to dig their rifle pits in darkness, use them during the day, and then pull back to friendly lines after dusk. When it was necessary to build and occupy a rifle pit in daylight, according to Union sharpshooter James Conrad Peters, he and his cohorts would crawl "about a half a mile on our hands and knees with shovels" and then scrape out a shallow recess to lie within, pushing dirt to the front for ballistic protection. Operating thusly, the Sharps rifle-armed Berdan Sharpshooters had a significant advantage: being able to reload their breechloaders while prone. Doing likewise with a muzzleloader was a clumsy, tedious affair for Confederate sharpshooters and considerably reduced their rate of fire.

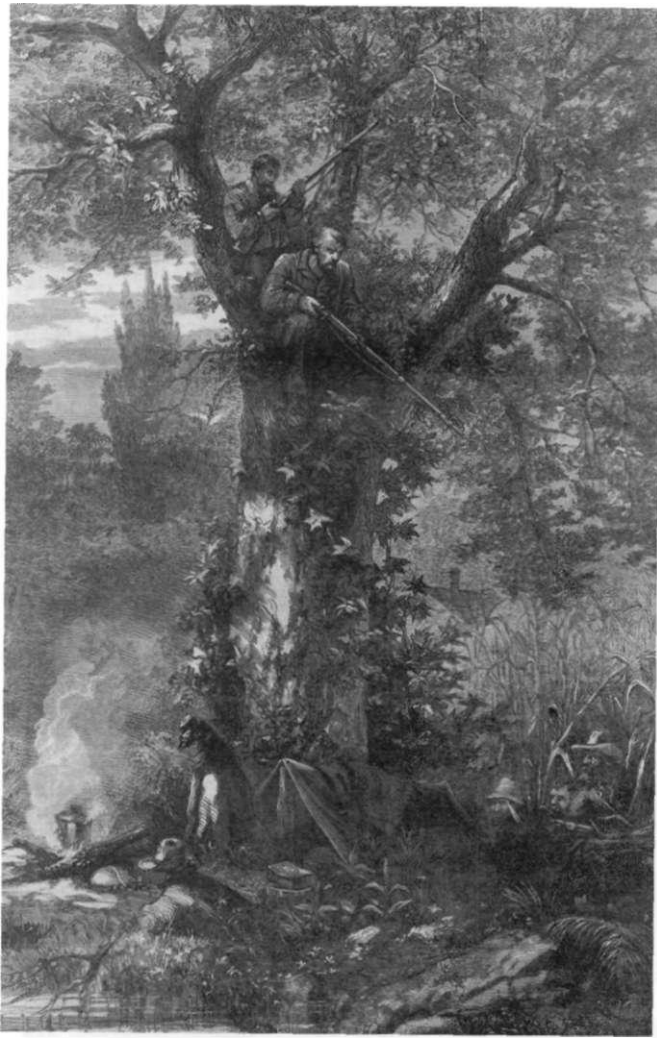
At the 1864 Battle of the Wilderness, a Confederate officer reported, "The Federal sharpshooters here taught us a lesson, by firing obliquely up and down the line, away to the left or right, instead of straight ahead." This allowed Union marksmen to hit far-away Rebel soldiers taking cover behind trees, while the Federals could not be hit by nearby enemy soldiers firing directly from their front. A brilliant tactic, it would be reborn in the trenches of World War I.

When fighting from hillcrests or behind dirt ridges, Berdan Sharpshooters improvised loopholes "by forcing sharpened stakes through the bank of earth," after which "woe to that unfortunate rebel who exposed even a small portion of his figure within the circumscribed range of their vision."

Firing positions in trees were quite popular because they offered observation and fields of fire superior to ground level. Ideally, the sharpshooter sat on a wide branch for a degree of comfort and stability, with another branch at shoulder height to support his rifle. His body was close to the trunk for



This Confederate sharpshooter, armed with a Whitworth, wisely uses a tree trunk for ballistic protection.



Rarely could two sharpshooters occupy a single tree, but in this case they were luring Union scouts.

“Commence firing!” Whether skirmishing, in rifle pits, atop trees, or on picket duty, they normally used their own judgment when circumstances required them to open fire. As accomplished marksmen, they had the shooting experience and as sharpshooters the tactical leeway to seek support for their rifle and exploit cover against enemy counterfire; this ensured both that they hit what they were aiming at and that hostile return fire would not hit them.

For long-range shooting—especially using telescope rifles or Whitworths—they sought the steadiest support available, whether a horse carcass, a hay bale, or a tripod. Tripod firing was instructed to Confederate sharpshooters in the spring of 1864, as recounted in Major Dunlop’s book, *Lee’s Sharpshooters*. So similar was this to the method taught at the British Hythe School of Musketry—placing a sandbag at the apex of three 6-foot poles lashed together—that I suspect they drew on Hythe materials to prepare the course.

frontal protection, and, if he was lucky, the leaves or pine boughs obscured the puff of his gunpowder. The downsides were reloading while perched on a branch and the hazard of getting down if he was spotted, along with the difficulty of aiming when wind swayed the tree. The most effective tree position was well back in a grove of trees, to make him more difficult to detect.

On occasion, special firing positions were constructed for sharpshooters, most often during sieges such as Vicksburg and Petersburg. At Sullivan’s Island, South Carolina, for example, the U.S. Army Corps of Engineers constructed a special tower—reminiscent of the Maham Towers of the Revolutionary War—for advantageous firing by sharpshooters.

TECHNIQUES OF FIRE

Unlike conventional infantry, Civil War sharpshooters did not await an officer’s command,

A Great Sharpshooter Ambush

The accuracy of Whitworth rifles was soon known and feared. But no engagement so well demonstrated the rifle's decisive effect when employed wisely as a November 1863 ambush on the Tennessee River.

At the time, the Union Army was occupying Chattanooga, Tennessee, and relied on a supply road that paralleled the Tennessee River. Some 12 miles west of Chattanooga, across the river from Raccoon Mountain, Union wagon trains were virtually pinned against the river and vulnerable to fire from the southern bank, some 250 yards away.

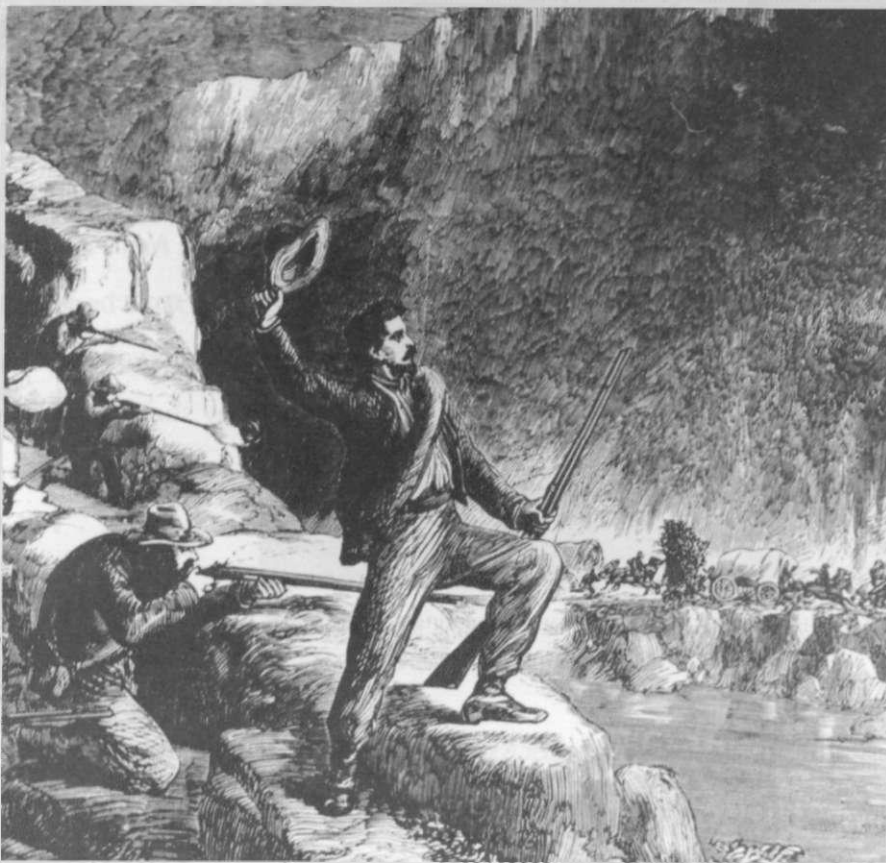
Confederate General James Longstreet dispatched a select handful of sharpshooters armed with scoped Whitworth rifles to hide among the rocks and trees of the river's south bank and lie in wait. The situation being unhurried—and with no guards on the Yankee side of the river—the sharpshooters had plenty of time to set their scopes for the exact range. They may even have fired a few spotting rounds.

The resulting ambush, witnessed by Frank Vizetelly, a correspondent-artist of the *Illustrated London News*, can only be termed "catastrophic."

The first well-aimed shots knocked down the lead wagon's mules, blocking the narrow road. There simply wasn't room for

the other wagons to turn around, nor could they back up. The

Union security escort, "after firing a few shots in return, fled panic-stricken." Methodically—"in a leisurely manner" one sharpshooter later wrote—the Whitworth riflemen tore apart the trapped convoy, "leaving the road choked with dead and dying men and mules and overturned wagons."



Cheering in exultation, Rebel sharpshooters celebrate the long-range ambush of a Union wagon train on the Tennessee River.



Support was crucial to well-aimed fire, even if it was a horse carcass.

Sharpshooters on both sides learned all sorts of tricks and sneaky techniques. For example, they perfected a special kind of precision volley fire, with each man aiming at a target for a surprise effect or to ensure a hit at great distance or in gusty winds. Though it looked like a volley, actually this was a “simultaneous engagement,” with a group of fine marksmen letting loose at the same instant. This is how Virginia sharpshooters killed Union Brigadier General James A. Mulligan on 26 July 1864, despite the great range. Realizing that there was only about a 30 percent chance of hitting him, seven marksmen all took careful aim and then fired simultaneously—and afterward regretted it, for Mulligan had treated Southern prisoners well and was deeply respected.

Other Confederate sharpshooters employed a series of simultaneous engagements to win the day at the Battle of Ream’s Station, Virginia, on 24 August 1864. Facing a numerically superior Union force, a battalion of Rebel sharpshooters fell back to good cover at a hillcrest 600 yards away and planned their response. Quoting their commander:

“Here, deliberately but without malice, planning the destruction of their enemies, the sharpshooters carefully estimated the distance between the lines, the depression of the ground where the enemy lay, the course the ball would take in its trajectory flight, and the exact point where it would cut the line of fire; then adjusting their sights accordingly, they entered upon the work at hand.”

Extreme-Range Shots

Civil War literature abounds with tales of amazing long-distance shots, with some claims exceeding the accuracy and range of sniper weapons 100 years later. How credible are these stories?

Some confusion arises because British engineer Joseph Whitworth applied his hexagonal projectile technology to both a sharpshooter's rifle *and* a light artillery piece of about 70mm. To distinguish its rifled bore from that of smoothbore artillery, this, too, was called a "Whitworth rifle" and fired its six-sided shell a mile or more. I think modern readers have sometimes misattributed extreme-range Whitworth artillery hits to the Confederate sharpshooter's rifle of the same name.

Eyewitness claims, too, sometimes challenge logic. Mile-long shots? One mile is 1,760 yards, well beyond the Whitworth sight's maximum elevation, meaning a sharpshooter would have had to "hold" dozens of feet above the target to put a round that far, which is contrary to the precise aim needed to hit a tiny target at great range. And even using a 4x scope, a human silhouette is a mighty tiny speck 1 mile away.

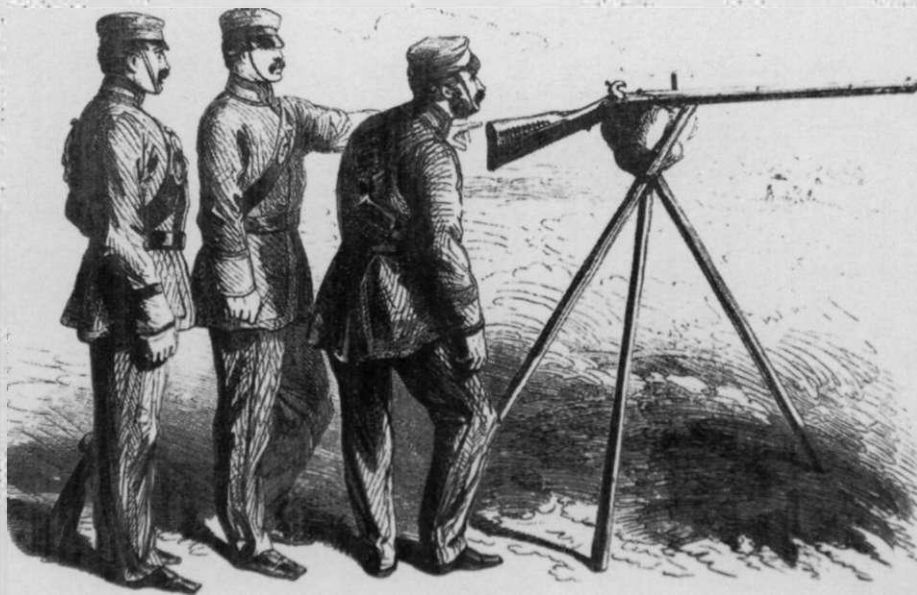
The Whitworth's known accuracy also challenges such performance. The 1857 British Ordnance tests included firing at 1,800 yards—40 yards over a mile—and generated a group radius of 139 inches, meaning a total diameter spread of 278 inches.

This test, I believe, exaggerated the spread due to crosswinds and the relatively low-powered scopes of that era. A more realistic long-range accuracy estimate can be extrapolated from the Whitworth's 100-yard groups—where optics perform well and wind has minimal effect—using a measurement called minutes of angle (MOA). Here's how that works: at 100 yards a Whitworth group measures 1.75 inches, pretty typical for that rifle. That group widens with distance; logically, it will be twice as wide at twice that distance, meaning it will spread to 3.5 inches at 200 yards. Very handily, the angular measurement, MOA, widens at almost exactly the same rate; at 100 yards 1 MOA equals 1 inch, at



Berdan Sharpshooters fire heavy "telescope rifles" at great range, 1862. (Courtesy of William H. Hastings.)

200 it's 2 inches, at 500 it's 5 inches, and so on. Thus, instead of saying the Whitworth 100-yard group measured 1.75 inches, we can call it 1.75 MOA—and then by simple multiplication calculate this group at 1 mile, or 1,760 yards: $1.75 \text{ MOA} \times 176 = 30.8$ inches. That's a foot wider than an average man's torso, telling me that even under ideal conditions—the exact range known, no effect from crosswinds, and a world-class marksman—the odds of a first-round hit at a mile are pretty iffy, at best a bit better than 50-50.



When firing at extreme range, Confederate sharpshooters used a “rest stick,” a tall tripod with a sandbag at its apex, a technique learned from the British.

Doing the same calculations for a Union telescope rifle, the Morgan James, cuts the 1-mile group in half. This rifle's stubbier Minie ball, however, lacked the Whitworth hexagonal bullet's ballistic efficiency, meaning the Morgan James required even a higher elevation hold and was more susceptible to drift in a crosswind.

All that said, there genuinely were some remarkable extreme-range hits with Civil War sharpshooter rifles—but just keep in mind that in wartime *no one records the misses*, which, statistically, must have been numerous.

DOCUMENTED EXTREME-RANGE SHOTS

Civil War sharpshooter unit histories did not find it worth commenting on shots of less than 700 yards, which was about the maximum range for the Berdan Sharpshooters' .52-caliber Sharps rifles. The July 1862 skirmish at Orange Court House was noted in their unit history because their bullets had “trajected over the entire length of a 700-yard field” and Confederate prisoners later verified their effectiveness. During another engagement, two Sharps-armed riflemen fired simultaneously at a Reb soldier some 700 yards away—and both their rounds hit, the wounded man later told his captors.

For firing beyond 700 yards, Berdan marksmen almost exclusively employed their heavy-barreled telescope rifles. And this threshold, too, crossed into the realm of the Confederate Whitworth sharpshooter.

No more knowledgeable or reliable witnesses to a long-range shot could be found than the Berdan Sharpshooters, so I have no doubt that the Confederate bullet that killed Union Major General Amiel Whipple at Chancellorsville actually was fired from a half-mile away—or 880 yards—as they reported. One day earlier, at nearby Hazel Grove, a Confederate officer, Captain Greenlee Davidson, was killed by a sharpshooter firing from 800 yards, demonstrating that the Union telescope rifle, too, was effective. →



When firing beyond 700 yards, Union sharpshooters employed heavy "telescope" rifles, which proved remarkably accurate. ("A Good Shot" by Dale Gallon, printed with permission, © Dale Gallon Historical Art.)

The Whitworth's deadliness was well known to Union officers, with one colonel realistically noting, "When we were within one-half [880 yards] or three-fourths [1,320 yards] of a mile of the enemy, the effect of their sharpshooters was terrible."

The colonel's view was correct, with any number of hits at better than a half-mile. During the Gettysburg Campaign, Second Lieutenant Ben Gough, 12th West Virginia Infantry, was cited in an official dispatch as having been "shot by a Rebel sharpshooter at not less than 900 yards distance." Such accuracy was not to be outdone by a Union telescope rifle, however, with Captain Samuel McKittrick, 16th South Carolina, falling to a 900-yard shot on 22 July 1864 outside Atlanta.

Reflecting as much their ingenuity as their accuracy, a handful of Berdan Sharpshooters scored hits with their Sharps rifles at an amazing 1,500 yards—nearly nine-tenths of a mile—at Todd's Tavern, Virginia. This challenge was given them by Lieutenant General Winfield Hancock, who wanted the Confederate observers vacated from a distant signal tower, a mission already attempted and failed by an artillery battery.

Their Sharps' sights maxing out at 1,000 yards, they scratched their heads and then whittled sticks to fashion extensions that further raised their rear sights. Three sharpshooters fired at the distant tower while an officer using binoculars watched the enemy soldiers look down—"Low!" he called. The sharpshooters fired more spotter rounds, and the Rebs looked up—"High!" he called. Now, with the position bracketed, some 23 sharpshooters similarly attached sight extensions and then, firing simultaneously, cleared the tower.

At the receiving end, the lethality of extreme-range Whitworth slugs was well documented. A *New York Herald* reporter with Union troops outside Fort Sumter noted no one had yet been hit by Confederate sharpshooters firing Whitworths at more than three-quarters of a mile, but "the bolts reach [here] with enough velocity to perforate any respectable thick head which they may come in contact with. . . ."

There are several accounts of both Confederate and Union sharpshooters scoring hits at 1 mile, but these appeared in postwar veteran publications, not wartime journals or official reports. Relying upon memory 30 years after the events, they must be regarded with some degree of skepticism.

By contrast the greatest Civil War extreme-range shot, which has been repeated far and wide in magazines, in books, and on television, *simply never happened*. This legendary mile-long shot originally appeared in the 1946 book *Our Rifles* and was attributed to "John Metcalf the 3d," an alleged West Point graduate and phenomenal marksman. Staking out a Union general's tent, the story goes, Metcalf was assisted by an engineer officer to precisely calculate the range, adjust his sights, and so forth, and then finally made his amazing shot. Versions of the story appeared in a 1961 *True Magazine* article and even generated an episode of the *General Electric Hour* on national television. The problem, explains NRA National Firearms Museum Curator Doug Wickland, is that none of this story checks out. The graduate rosters of West Point do not contain any, "John H. Metcalf III" nor do Civil War records include a distinguished sharpshooter of that name. As a Confederate of such great achievement, he should at least have been mentioned in *The Confederate Veteran*, the magazine published by Southern veterans, but that did not happen. Further, as firearms researcher William B. Edwards notes in his book, *Civil War Guns*, not only is there no record of a Union general killed at extreme-range during the "Red River Campaign, Louisiana, April, 1864," but the alleged victim, "General George Lainhart," did not exist!

This story may have been inspired by an 1896 letter in *The Confederate Veteran*, written by former CSA Captain F.S. Harris, which claimed that a Rebel sharpshooter, assisted by the range estimate of an engineer officer, had killed a Union general at an astounding 2,250 yards. Harris claimed, "A few days later a Northern paper announced the General _____, I forget the name, and several of his staff were killed by Rebel sharpshooters at long range." Having done my best to confirm that incident and come up empty-handed, I, too, doubt that it ever happened.

At his command, the entire battalion rose above the hillcrest, took quick aim at Union soldiers exposed all along the facing wood line, and “delivered a volley then dropped back down to load.” Continuing this deadly routine “for five mortal hours [we] swept the Union breastworks with a perfect sheet of lead . . . and with unerring aim proceeded to split the scalp of every mother’s son that dared to lift his head above the breastworks.” Runners brought forward additional ammunition, allowing the Rebel marksmen to fire an astonishing 160 aimed rounds apiece. Eventually the Union force “fled through the woods in the wildest confusion.”

To be sure, the Confederates had no monopoly on clever techniques. An officer of the 20th Ohio Infantry Regiment recalled how his sharpshooters sometimes made “a tremendous shout, and when the enemy bob up to see what is going on they give them a telling volley, and then roll over and kick their heels up in the air in great joy.”

Some tricks were pure improvisations. Hearing Union troops digging in total darkness 100 yards away, a South Carolina sharpshooter officer, Lieutenant J.D. McConnell, knew there was little hope of hitting them—then a thought struck him. He ordered one company, from the safety of a trench, to fire blindly toward the Union troops. Sure enough, the whole Union line returned fire—which perfectly illuminated them for another company of South Carolinians, rifles cocked and ready at their shoulders, to fire with telling effect. “We killed five,” McConnell reported, “all in [colorful] Zouave uniform.”

ENGAGING ENEMY ARTILLERY

There was no sharpshooter mission more demanding—and so hazardous when done improperly—than engaging artillery crews. Unlike the 20th century, when artillery units used forward observers and radios to engage distant targets the gunners could not see, artillery pieces of the 19th century had to employ “direct fire,” meaning the gun crews personally eyeballed their targets. And if a Civil War artillery crew could see their targets, they, too, could be seen and engaged.

Positioning himself further than 400 yards from an enemy cannon, the sharpshooter knew he was beyond the effective range of its canister round, also called “grapeshot” since it spewed a bucketful of grape-size lead balls. Thus, when firing from 500 or more yards—still within the accurate range of his rifle—a sharpshooter could make life hell for loaders and gunners, who had to show themselves to operate their guns. Not only did an artilleryman have to load at the bore, but another crewman first had to swab it with water to extinguish embers from the previous round and ram down a powder

Artillery Sharpshooters

Artillerymen did not usually refer to themselves as sharpshooters, but in an engagement on 19 November 1863, a gun crew from Battery E, 2nd U.S. Artillery proved themselves truly worthy of the title.

That day, during fighting in Knoxville, Tennessee, Rebel sharpshooters had occupied General James Longstreet's former headquarters in a stately home known as Bleak House. Taking positions in the house's prominent turret, the Whitworth-armed marksmen had a considerable field of fire, deep into Union lines. Spotting a distinct figure, undoubtedly a senior officer, one sharpshooter took careful aim—and got his man.

The shock could not have been worse to Union forces fighting at Knoxville. Mortally wounded from one well-aimed shot was their division commander, Major General William Price Sanders.



When a Rebel sharpshooter killed Major General William Price Sanders, an extreme-range artillery shot avenged his death.

Not far from where Major General Sanders fell stood Fort Loudon, where Lieutenant Samuel Benjamin commanded the Union artillery battery. Learning that the fatal shot had come from the Bleak House's distant turret—fully 2,500 yards away—Lieutenant Benjamin took especial care in

calculating the range, adjusting one gun's elevation, even taking into account the effect of the wind. Then he fired.

It was perfect. The parrot gun's projectile impacted directly on the turret, killing three sharpshooters and forcing the rest to flee. Lieutenant Benjamin's was quite likely the most accurate deliberate artillery shot of the war.

And, if you're interested, the stately Bleak House still exists. Open to the public for meetings and receptions, its restored turret displays a pencil drawing of the sharpshooters who died there, one of whom is buried on the grounds.

sack. Further, each time the gun shifted targets, a gunner had to look down a brass sight placed at the rear of the barrel.

According to one Confederate officer:

"Ordinarily, if these sharpshooters could place themselves in sight of the enemy's cannons, with fair cover, and within a quarter to half mile, it was almost certain death or disabling for a Federal soldier to swab or load after discharge, as he could not protect himself when his gun was in position."

CSA Brigadier General W.L. Cabell, Commanding Northwest Arkansas, had to report to his higher headquarters:

"I regret to say I lost a good many [artillery] horses. The enemy's sharpshooters killed a good many with their long-range guns. . . . Had I had 500 long-range [rifles] with good cartridges, I could have taken the place in an hour. As it was, I could not advance my battery, as I had nothing to cover them with, as the enemy's [sharpshooter] guns were equal in range to the artillery."

Cannon crews were especially vulnerable to sharpshooters while unlimbering and positioning guns because at that moment, rapid emplacement was usually thought more important than seeking cover from enemy fire. While positioning his guns during the Atlanta Campaign, Lieutenant James Hurst of the 2nd Missouri Artillery Regiment "was killed by a sharpshooter." At Chickamauga, Union Major James Hampson was shot dead by a sharpshooter while positioning artillery. Lieutenant Orrin B. Carpenter of the 9th New York Heavy Artillery similarly was shot dead while aligning guns at the Battle of Cedar Creek. This happened so frequently that it almost became an everyday hazard, an unending cost of battle.

In many cases, sharpshooters merely suppressing artillery was acceptable—that is, placing such hazardous fire that the crews backed away from their guns. When Colonel Giles Smith of the 8th Missouri ordered his sharpshooters forward, "they advanced to within 100 yards of the guns, which they effectually silenced, not



While manning their guns, artillery crews were particularly vulnerable to sharpshooter fire.

only picking off every gunner who showed himself above the works, but killing every horse belonging to the artillery."

"Whenever a gunner exposed himself in the least," a *New York Herald* correspondent wrote from a Virginia battlefield, "he found he immediately became the target for innumerable concealed and unerring marksmen. Flesh and blood could not face the ordeal, and serving these guns was temporarily abandoned."

At the Battle of Spotsylvania, the Berdan Sharpshooters took on three Confederate artillery batteries. "They would try to load their pieces by reaching up under the muzzle," wrote a sharpshooter, "but the boys could send a Sharps rifle ball so completely in the muzzles of their cannon at this distance that they could not load."

Occasionally, sharpshooter fire proved so totally overwhelming that the guns were completely abandoned. At Bristoe Station, Virginia, on 14 October 1863, the 1st Company of Andrews Sharpshooters did not merely drive off the gun crews, but rushed forward and captured the guns. "I think they deserve the highest praise for the well timed audacity of the scheme," wrote Union Major Henry Abbott. But for one damaged cannon, all saw further service in Union batteries.



Even behind thick cover, gun crews still had to expose themselves to load and aim their cannons.

Instead of capturing it, other sharpshooters demonstrated that they could actually destroy an enemy gun with precision fire. During the Yorktown siege, Lieutenant Martin V. Bronson of Berdan's Sharpshooters announced that a heavy Confederate gun dubbed "Petersburg" would blow up if precisely placed shots could throw sand and

gravel down its bore. A former artilleryman, Lieutenant Bronson and several sharpshooters fired numerous rounds into sandbags at the gun's muzzle, splashing abrasive sand down the barrel. Sure enough, when the gun fired its thirteenth round, it blew up. This is, however, the only instance I've come across where this technique succeeded.

At times these artillery-sharpshooter engagements became all-out duels. Confederate sharpshooters firing from a house at Manassas, Virginia, shot down so many horses that a Union battery could not move and then began knocking down the crews—who turned their undivided attention and their guns toward the house. In quick salvos, their six cannons literally blew the house to bits, along with anything that was inside.

Some artillery batteries integrated the fire of supporting sharpshooters for maximum effectiveness. Recalled a Union artillery officer:

"We had the advantage of position having posted our battery so it would sweep the road for nearly a mile. We hid our sharpshooters also in the edge of the swamp and when the [Rebel] battery would reply to our's, those keen eyed marksmen would pick off their artillerymen, so that our battery had much the best of the fight."

In that case artillerymen appreciated the support of sharpshooters, but this was not always true. On 24 June 1864 near Petersburg, Berdan Sharpshooter James Ragin was requested to support an artillery battery, its commander desiring "to witness Ragin's skill in long-range shooting." The keen-eyed Ragin obligingly let loose a series of deadly shots from his 34-pound telescope rifle into a distant Confederate battery—which then poured shells on the Union artillery position. "Thereupon in a profane and excited manner," the account finishes, the artillery officer "ordered Ragin away."



Countering Confederate artillery, Berdan Sharpshooters pick off enemy gun crews.



Confederate artillerymen lie dead about their battery. Killing or suppressing gun crews was a primary mission for sharpshooters.



The 10th Massachusetts battery commander, Captain J. Henry Sleeper (standing, center), whose artillerymen were riddled with sharpshooter fire.

Concentrated sharpshooter fire, in some situations, tore artillery batteries quickly to shreds. At Ream's Station, Virginia, the 10th Massachusetts Battery, "one of the best in the service," according to *Harper's Weekly*, suffered such a fate.

Commanded by Captain J. Henry Sleeper, a prominent Bostonian, the battery was setting up when Confederate marksmen from McGowan's Sharpshooters took aim from 300 yards away. First to fall was Hosea O. Barnes, on the

number-three gun. Next, Captain Sleeper was shot through the arm, and Lieutenant H.H. Granger assumed command. Then, a teamster, John Goodwin, took a round through the shoulder. Charles Mason, a driver on the number-one gun, and Samuel H. Foster, another driver, were both shot in the head. William Rawson was shot in the foot, and Lieutenant Granger had his pistol shot out of his hands. Then Lieutenants Adams and Smith were mortally shot. Of the battery's 24 horses, only two were still standing, and one caisson was exploded by incoming fire.

Imagine, then, the continuing losses, the ever-present dangers artillerymen felt from sharpshooters—and how readily they would return the compliment when given the chance. That's what happened at the 1862 Battle of Frayser's Farm, where General James Longstreet "sent orders for [Brigadier General Micah] Jenkins to silence [a] battery" that was firing into his position. What Longstreet intended was that Jenkins' "sharp-shooters would be pushed forward till they could pick off the gunners, thus ridding us of that annoyance." Unfortunately for the Palmetto Sharpshooters, that is not how Colonel Jenkins interpreted it.

Instead of placing precision rifle fire on the Union guns, Jenkins had the whole battalion rush the guns across open ground. The air singing with grapeshot, the Palmetto Sharpshooters charged through volley after volley of canister rounds. Yes, they did capture six guns. But behind them

strewn across the field was a ghastly sight; the Palmetto Sharpshooters had lost 67 percent of its men, killed and wounded—an unnecessary catastrophe, thought General Longstreet, who blamed the tragic affair on Jenkins.

COUNTERING SHARPSHOOTERS

As demonstrated in Jenkins' charge, one of the most effective Civil War counter-sharpshooter weapons was an artillery piece, especially when firing canister rounds packed with inch-wide lead shot. Like a gigantic shotgun, hundreds of these grape-sized projectiles riddled a swath 25 yards wide, to a distance of 400 yards. Beyond that range, solid or explosive shells had to be fired with considerable accuracy to hit a target as small as an individual sharpshooter. Despite this, Rebel sharpshooter John West learned that artillerymen "would turn their guns upon a sharpshooter as quick as they would upon a battery."

Keen to the danger of canister rounds, most sharpshooters wisely fired from farther than 400 yards, but some gun crews had the skill to fire solid rounds accurately at a considerable distance. Confederate artilleryman James M. Dancy recorded in his journal what happened when a Federal sharpshooter began placing effective fire on his crew:

"A sharpshooter in a tall cypress got the range of Lieut. Hines' gun and with a globe-sighted rifle fired three shots. One struck the axle; one struck the face of the gun; the third shattered the left arm of the gunner, George Griffin. Our gun sergeant with his glass had located this sharpshooter by the puffs of smoke from a large cypress tree about a quarter of a mile away . . . about fifty feet from the ground. He trained our gun, loaded with a twelve-pound solid shot. After the report, no more shots were fired. . . . Our solid shot had passed through the sharpshooter's body, cutting it nearly in two."

Oftentimes it was not just one cannon returning fire. "Just as soon as we'd see one of those little puffs of smoke," recalled a Confederate veteran, "the entire battery would rain shot and shell into that tree, and we'd make it so hot for the sharpshooter that he'd either tumble or crawl out, dead or alive."

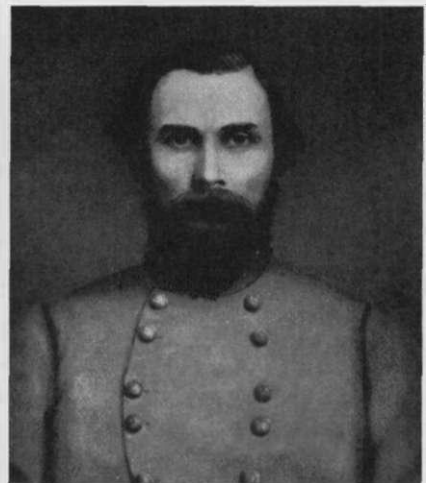
The sharpshooter frequently did not realize until too late that he'd been targeted by artillery. At the Battle of Jones Farm in July 1864, a treetop Union telescope rifle sharpshooter was placing deadly fire among a North Carolina regiment. When spotted almost a mile away, Rebel officers realized "there was not a small arm in the Division that would carry effectively one-fourth that distance." But

Shooting the Sharpshooter Who Killed Colonel Starnes

Colonel James W. Starnes, commander of the 4th Tennessee Cavalry Regiment, was said to have “no fault, unless it was the constant rash exposure of himself to danger.” On 30 June 1863, near Tullahoma, Tennessee, as Captain W.A. Hubbard advanced with skirmishers into heavy Union fire, he found Colonel Starnes approaching. Hubbard begged his “beloved commander” to retire to the relative safety of the main line. Starnes thanked him for his concern “but, as usual, remained at the front.”

Momentarily, a Union sharpshooter spotted the regimental commander. One well-aimed shot ended Colonel Starnes’ life. “Thus fell this worthy physician, brave soldier and noble man, in the prime of life and on the threshold of a great career,” wrote an admirer.

The anonymous Union sharpshooter may have realized he’d shot an important officer—but we’ll never know his thoughts. For a Confederate sharpshooter named Jackson, from Ashland, Tennessee, happened upon the scene and spotted the concealed sharpshooter’s puff of smoke, high in a tree. Reported a witness, Jackson “picked his way cautiously . . . until he had a safe range upon the Federal, and at the crack of his gun the man fell from the tree like a squirrel before the rifle of a trained hunter.”



Killed by a Union sharpshooter, Colonel James W. Starnes had his death avenged moments later by a Confederate sharpshooter.

what the sharpshooter didn’t know was that McGregor’s Artillery Battery was hidden in the adjacent woods. “McGregor carefully measured the distance,” explained a North Carolina officer, “trained one of his six-pound guns upon the object, loaded with a shell with fuse cut nicely and sighted by his most skillful gunner, exploded the shell at the sharpshooter’s feet.” That was the end of that.

The more effective the sharpshooter, the more rounds he received in counterfire. At Cold Harbor on 6 June 1864, a Confederate battery fired salvo after salvo at Berdan Sharpshooter Wyman C. White, expending “as much as fifty shots slam bang into the place where I had been firing.” Fortunately for White, he was able to get below ground.

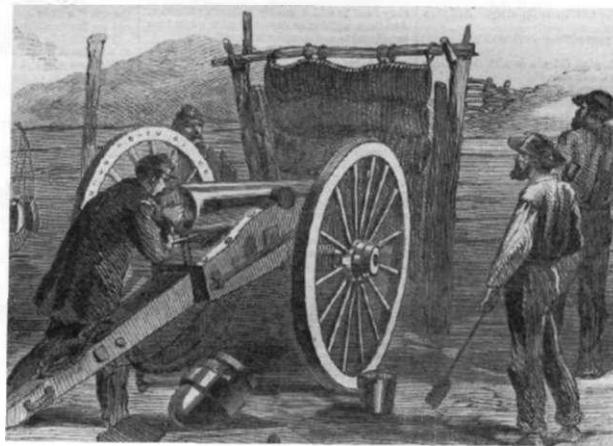
Sometimes, despite the apparent superiority of firepower, these exchanges backfired for the cannoneers. Edward S. Small, a New Hampshire man, and a handful of comrades were plinking away at Confederate positions on Chickahominy Creek when a Rebel artillery battery arrived to do them in. As the Confederate artillerymen unlimbered their guns, the Yankee sharpshooters poured fire on them, killing several horses and knocking down a number of men, with one lucky shot smacking into an ammunition chest, setting off a secondary explosion. The surviving artillerymen fled for their lives.

Contrary to the South's image of chivalry, Union sharpshooters drove one desperate Confederate artillery officer to a seedy display of cowardice. After precision fire had knocked down a number of his crews, making it impossible to reload their guns, the Rebel captain drew his pistol and forced slaves to load a cannon. The terror on their faces was captured in an illustration published by *Harper's Weekly*, and apparently brought enough shame that the despicable countertactic was not used again.

A more frequently encountered defensive measure was placing mantelets before artillery pieces to deflect or absorb sharpshooter fire. These shields, made of iron or even thick-woven rope (see page 93), allowed



His gun crews shot or forced to cover by Berdan's Sharpshooters, a Rebel artillery captain forces slaves at gunpoint to man an artillery piece.



This mantelet shield protected Rebel gun crews at Petersburg from Union sharpshooters—except when they had to load or swab the bore.



This dirt-filled wicker cylinder "sap roller," weighing up to a ton, protected engineers from sharpshooter fire while they were digging trenches.

the crew to aim and fire, but it was still hazardous to swab and load.

All sorts of other techniques and devices were employed to minimize the effectiveness of sharpshooter fire. While digging trenches, engineers rolled before them enormous "sap rollers"—dirt-packed, basket-like woven cylinders weighing almost a ton. Impervious even to Whitworth slugs, this mobile cover allowed engineers to safely dig trenches and fighting positions. Barricades were constructed from whatever was available—logs, rocks, even cotton bales. As quickly as fire erupted, many wizened infantrymen began stacking rocks for cover, considerable lengths of which are still visible at Gettysburg today.

To deny sharpshoot-

The Smartest Commander

The most adept commander I've come upon for countering Civil War sharpshooters is Colonel Robert C. Newton of the 5th Arkansas Cavalry. His sophisticated, flexible tactics worked superbly, marking him as a master tactician and his techniques worthy of elaboration. On 4 December 1863, he reported his engagement at Pine Bluff, Arkansas, which included the following details:

"The enemy's sharpshooters now commenced firing upon me from the different houses along the lower edge of town, and, ordering Pratt to turn his fire upon them, I advanced Wood's and Chenoweth's skirmishers, and soon drove the Federal sharpshooters out of the houses in which they had first concealed themselves. They fell back to the houses on the next street, and, being strengthened from toward the court house, they kept up a brisk fire upon me. Finding that they would have me at a disadvantage should I waste time in sharpshooting with them, I pushed forward my skirmishers and charged with Wood's and Chenoweth's commands, driving the enemy through the houses, and inclosures in the town, until I reached the block upon which the residence of Anthony Rodgers stands, where I halted to give the men breathing time and to reform my line. . . . I concluded, inasmuch as the firing had ceased . . . to push my sharpshooters up as close to the enemy as could be done without too much exposure, and not charge, if at all, until I could rely upon being supported by at least Greene's column. . . . Brisk skirmishing continued all the time between my sharpshooters and those of the enemy. I ordered up Pratt's battery, and put it in position at the southwest corner of Rodger's inclosure, and opened with it upon the courthouse and the adjoining buildings, in which the enemy's sharpshooters were posted. In a short time he had silenced such of them as were firing from the cupola of the courthouse and those in Rodgers' storehouse. . . ."

Applying relentless pressure, flexibly employing skirmishers, then sharpshooters, and finally artillery, Colonel Newton had contained, compressed, and finally destroyed the enemy sharpshooters with minimal losses to his own forces.

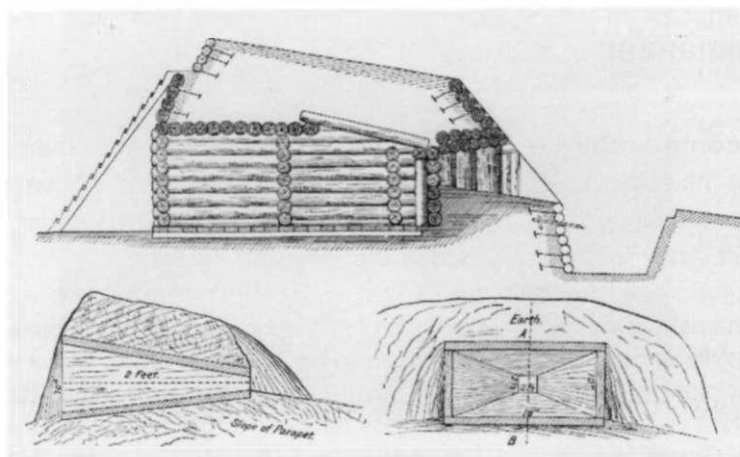
ers cover or concealment along the Potomac shore—and thereby make for safer water travel—the Union Army burned large stretches of its western bank. More directly, torching buildings was a way of flushing or killing sharpshooters inside. In Knoxville, Tennessee, on 20 November 1863, Irwin Shepard, Andrew J. Kelley, and John Falconer earned Medals of Honor for having been the "burning party" of the 17th Michigan Infantry sent "to destroy buildings behind the enemy's lines from which sharpshooters had been firing."

Whitworth sharpshooter fire was so deadly at Fort Fisher, South Carolina, that a Union engineer, a Captain King, mass-produced a special, one-man log bunker. "And where there was much sharpshooting," a report explains, "the orifice [firing port] was still further reduced by a plate of thin boiler iron eight or ten inches square, with a hole in the center but little larger than the barrel of a musket."

A more personal kind of cover—body armor—was commercially manufactured in New York and sold through ads in major newspapers. In ads proclaiming "it will save thousands," the "Soldier's

Bullet Proof Vest” was purported to stop pistol bullets at 10 paces and rifle bullets at 40 rods (220 yards). One member of Berdan’s Sharpshooters, known by the nickname “Snap Shot,” wore such a vest but eventually threw it away, complaining, “I have carried that weighty nuisance long enough.” How well did it work? Dr. J.V. Harris, a Confederate officer, found one at Shiloh that, he reported, “had a bullet hole through it . . . just over the position of the heart.” A specimen found on the Gettysburg battlefield is displayed today at the museum there.

In lieu of body armor, there were



Union engineers prefabricated this special bunker to withstand Confederate Whitworth sharpshooter fire at Fort Fisher, South Carolina.



The “Soldier’s Bullet Proof Vest” was heavily advertised in newspapers, but it did not live up to its claims. (Original art by Tami Anderson.)

many ways to safely respond to sharpshooter fire. The simplest and most obvious—if you survived the sharpshooter’s first shot—was simply to get out of his line of fire. It easily took a minute or more to reload a Whitworth or telescope rifle, especially if the hidden rifleman was perched in a treetop, quite enough time to find a better place to be.

There are many accounts of would-be victims actually dodging the sharpshooter’s round, virtually leaping out of its way like something in the *Matrix* movies. This, too, was common sense, if you spotted the “puff” of his shot.

Knowing the weight and muzzle velocity of a typical sharpshooter's round, I ran the data through my Sierra ballistic software and found that at 300 yards, you had one second before it reached you, two seconds at 500 yards, and three seconds at 800 yards. That's a lot of time, plenty to see the "puff" and then drop or jump for cover—the key factor being detecting the muzzle blast.

This dodging tactic became sufficiently widespread that sharpshooters sometimes took it into account when planning a shot. At Gettysburg, Union sharpshooters realized that Confederate sharpshooters firing from a house would see the smoke of their muzzles, so they split into two elements. One element fired and, sure enough, the Rebel sharpshooters dodged—then the second element shot, and their rounds arrived just as the "Johnnies" raised their heads, to deadly effect.

Ever-resourceful sharpshooters accepted the likelihood of their muzzle smoke being spotted and began displacing—that is, firing a shot and moving to another firing position—to protect themselves from counterfire. One clever Rebel sharpshooter, realizing that Yankee infantrymen had a psychological need to shoot back at something, propped up a body near his firing position to draw away their fire. The ruse would have worked except a Berdan Sharpshooter could see the truth through the magnified image of his scope and aimed at the live infantryman.

Even amid the fire of a general engagement, according to Union veterans, they could distinguish the whistling sound of a Whitworth bullet in flight—probably reflecting its distinct shape—and possibly even back-trace the hidden gunman's general direction.

Detecting a well-hidden sharpshooter could require a bit of investigative ingenuity. At Chancellorsville in 1863, when other means of spotting a Rebel sharpshooter failed, a Union sharpshooter employed a novel technique:

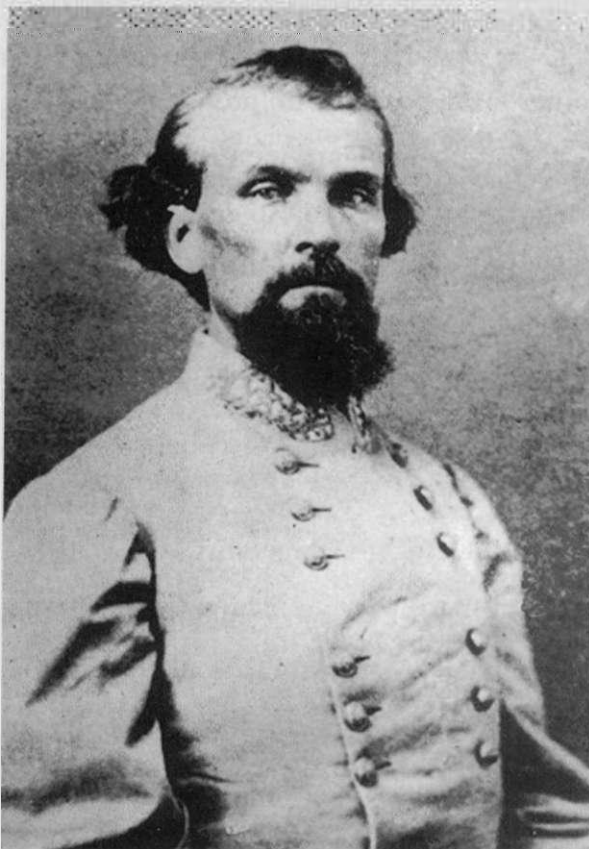
"His bullet struck into the bank, and instantly our sharpshooter ran his ramrod down the hole made by the Johnnie's ball, then lay down on his back and sighted along the ramrod. He accordingly perceived from the direction that his game was on top of a thick bushy elm tree about 100 yards in the front. It was then the work of less than a second to aim his long telescopic rifle at that tree and crack she went. Down tumbled Mr. Johnnie like a great crow out of his nest, and we had no more trouble from that source."

When every other technique failed, there was still luring the sharpshooter's fire in hopes of spotting a puff of smoke or movement in a treetop. Most commonly, this involved displaying hats or items of clothing. A Confederate officer "had some sand bags removed from the wall, leaving two holes, at each of which a marksman with a Whitworth rifle stood ready to fire." Then a hat on a

Angry Officers

At the Battle of Fort Donelson, a body of keen-eyed Birge's Western Sharpshooters were knocking down Confederate soldiers all along the works. In a forward position, the legendary Confederate cavalry commander, General Nathan Bedford Forrest, grew angry at the one-sided casualties. Detecting a Birge Sharpshooter in a tree, he borrowed a soldier's Maynard rifle "and rather foolishly exposing himself . . . fired at the unfortunate soldier, who tumbled headlong to the ground." Bedford, who lived a charmed life, had once again demonstrated the daring for which he was famous.

Other angry officers who personally fired at sharpshooters were not so fortunate. Captain Edward Acton, 5th New Jersey Volunteer Infantry, at the Second Battle of Bull Run, grew "irritated" by Confederate sharpshooters wounding his men. Borrowing a rifle, Acton sought out, found, and killed a Rebel marksman. However, he had revealed his position, and thus, while reloading, another Confederate sharpshooter shot him. In less than an hour he expired.



Unlike General Nathan Bedford Forrest, who shot a Union sharpshooter at Fort Donelson, officers who fired at sharpshooters typically lost such contests.

Lieutenant Colonel Victor De Monteil, executive officer of the 53rd New York Regiment, grabbed a rifle to join other men exchanging fire with sharpshooters during a landing in North Carolina. Lieutenant Colonel De Monteil "was coolly loading, firing and watching the effect of each shot," one account states. And that's when he was killed.

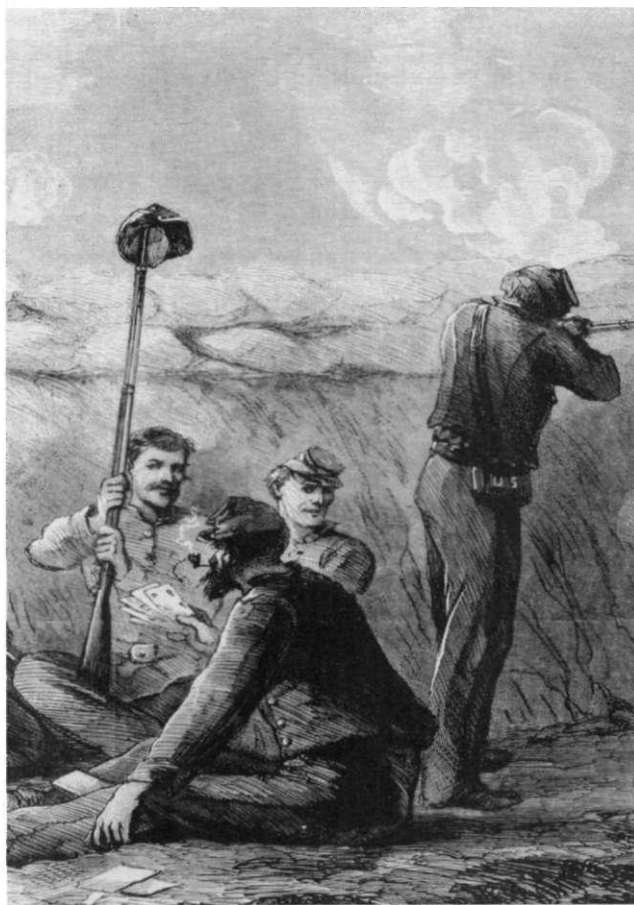
At sea it was equally hazardous for naval officers to do battle with sharpshooters. Acting Ensign Henry Jackson, U.S. Navy, in 1864 observed a Confederate flag flying from a captured Union ship. Emotionally moved, the young ensign borrowed a rifle to shoot down the enemy colors and was himself shot dead by a Rebel sharpshooter.

Confederate Navy Captain Franklin Buchanan, a veteran of nearly 50 years' service and the founding commandant of the U.S. Naval Academy, in 1862 commanded the famous ironclad CSS *Virginia*. It was Captain Buchanan who won history's first engagement by an ironclad, sinking three wooden Union ships and three small steamers at Hampton Roads, Virginia. At the end of that fight, angry with some plinking by Union sharpshooters, Buchanan left behind the armor protection of his iron hull to go "topside to return fire with a Sharps carbine." Of course the sharpshooters prevailed, seriously wounding Captain Buchanan. But his pain was doubled, for the very next day one of the most pivotal naval engagements of all history occurred: the "battle of the ironclads," CSS *Virginia* versus the USS *Monitor*. And Buchanan could only watch from afar, having relinquished command to obtain medical treatment.

ramrod drew the unfortunate sniper's fire and, with it, his demise. In a more elaborate version, some Union sharpshooters "rigged up a stick with a hat and coat and shoved it out across a roadway, when instantly a report was heard and a bullet passed through the coat." This, too, drew an instant response from four sharpshooters, the Rebel "receiving his quietus."

On 24 May 1864, the *New York Herald*

described an amazing counter-sharpshooter engagement, in which one unnamed Union marksman "would take a position behind a tree, select a spot where he knew a Rebel sharpshooter was concealed, and cover it with his gun" while his partner "would step out quickly in plain view of the Rebel, who would raise up and fire, only to fall back dead or wounded." By purposely exposing himself, the sharpshooter enabled his comrade to kill "no less than a half-dozen Rebel sharpshooters." This was no tall tale. Civil War records reveal that the Medal of



To discover hidden sharpshooters, troops of both sides lured fire with various ruses.

Honor was presented to Corporal Follett Johnson of the 60th New York Infantry for having "exposed himself to the fire of a Confederate sharpshooter, thus drawing fire upon himself and enabling his comrade to shoot the sharpshooter."

The Medal of Honor also was awarded to Private Delano Morey of the 82nd Ohio Infantry for dealing with two Confederate sharpshooters. In Morey's case, he realized there would be

a short pause while the gunmen reloaded, so he rushed the sharpshooters—"with an empty gun"—and captured both of them. "When they saw me coming on the full run," he later recalled, "they hastened to load their guns, but I was a little too quick for them." Similarly, Corporal Henderson Howard of the 11th Pennsylvania Reserves single-handedly rushed several sharpshooters, bayoneting them and prevailing despite sustaining three wounds.

Conventional infantry often dealt death blows to sharpshooters, sometimes delivered in a

sophisticated way and sometimes not. After receiving a series of well-aimed shots from a distant wood line at Ellis' Ford, Virginia, a Union commander "ordered a volley fired, which must have taken the Reb by surprise, as he was found on their approach in a sprawling position at the foot of the tree, pretty much used up."

On other occasions, selective rifle fire did the trick. After "a crowd of Rebel sharpshooters annoyed us . . . by their constant firing at us through the night," a Captain Williams of Company D, 16th Illinois Cavalry, organized a detail of his regiment's finest riflemen. Stalking their way in the darkness to good overwatch positions, they could not see the sharpshooters, "but every time they would shoot, some of us would let them have one." By dawn, these select marksmen had eliminated the sharpshooters.

The 27th Massachusetts Regiment of Volunteer Infantry maintained a handful of counter-sharpshooters, ready to be called on whenever needed. "We soon acquainted ourselves with the positions and tricks of the enemy's sharpshooters, who, like many of our men, were in the trees, picking off any who showed their heads above the defenses." As many as a dozen riflemen replied to each sharpshooter's shot, focusing well-aimed fire to eliminate their foe.

Angered by continuing sharpshooter fire at Cold Harbor, CSA Brigadier General William Pender rode up to an artillery battery, recruited a dozen select rifle shots, and then went after the hidden Yankee. After "winding up" the one who had shot at General Pender, the Rebel marksmen helped themselves to his boots, clothing, and food, their own being in short supply.

SHARPSHOOTER VERSUS SHARPSHOOTER

Ultimately, the most effective means of countering a sharpshooter was pitting another sharpshooter against him. "In such cases," wrote Captain Stevens of Berdan's Sharpshooters, "calls would be made for a detail of sharp shooters, who would be gone sometimes for several days before returning to camp, always, however, being successful in removing the trouble."

Confederate sharpshooters, too, were called in to duel their more troublesome Union counterparts. When the 1st Texas Volunteer Infantry, which had no long-range rifles, had "a lot of trouble" from Yankee sharpshooters, General John Hood asked General James Longstreet for assistance. He dispatched a sharpshooter named Serrell who "soon located the Yank and sneaked up near enough to make certain of his first shot." Not only did Serrell kill him, but he carried away the sharpshooter's rifle and all his gear.

Killing the Men Who Killed Polk

It was not every day that a three-star general was killed in action. Confederate Lieutenant General Leonidas Polk—nicknamed “Bishop Polk” because he’d once been an Episcopal bishop—was observing Union positions alongside Generals Joseph Johnston and William Hardee near Marietta, Georgia, when an incoming Union shell detonated beside him. Hardee and Johnston escaped injury, but Polk was killed, one of only three Confederate corps commanders to die in the war.

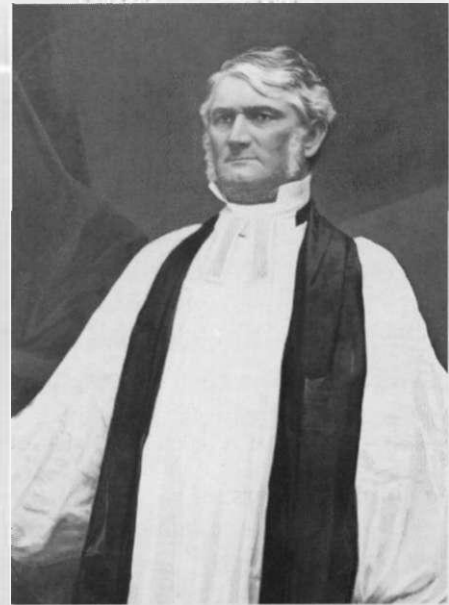
There was no gloating on the Union side; however, the commander of the 5th Indiana Battery that fired the fatal shot, Captain Peter Simonson, was justifiably congratulated for a fine job.

Whether Simonson was purposely targeted by sharpshooters to avenge the death of Polk is not known. But what is known is what happened a mere 48 hours later.

The same dispatch in which Brigadier General W. Grose, commanding the Union’s 3rd Brigade of the 1st Division, reported General Polk’s death—just two sentences later—also stated, “On this day [16 June], we had the sad misfortune to lose the brave and gallant officer, Captain Simonson, our chief of artillery.”

“While laying out a position for a battery,” another report elaborates, “Capt. Peter Simonson, Fifth Indiana Battery, was instantly killed by a sharpshooter. This was an irreparable loss to the division.”

Confederate Lieutenant L.D. Young of the Orphan Brigade, an eyewitness to Polk’s death, later wrote that the shot that killed Captain Simonson was fired by a Kerr-armed marksman from Lieutenant George Hector Burton’s Sharpshooters. Whether that was a chance encounter or a deliberate attack, however, Young did not say.



“Bishop Polk,” CSA Lieutenant General Leonidas Polk, was killed near Marietta, Georgia, by a shot from the 5th Indiana Battery.

When a Rebel sharpshooter killed a Berdan marksman during the Yorktown siege, Colonel Berdan personally spotted his firing position and then dispatched six sharpshooters to hunt the Rebel down, declaring, “They must put a stop to such work of the enemy.” This became an overnight effort, with the Union men stalking forward in darkness and then awaiting dawn with their rifles trained on the sharpshooter’s position. Soon after daylight the Confederate raised his head for the last time. “Thus was the colonel’s order faithfully carried out,” notes the Berdan unit history.

There were many similar incidents of hunters and hunted. So elated was the Confederate commander at Battery Wagner, South Carolina, to have a Union sharpshooter killed, that it was his first

Drawing Fire

Civil War sharpshooters inflicted considerable losses wherever they appeared. In many cases, however, the targeting of these casualties was facilitated by the target's own conspicuous action or bold uniform—they were practically “self-targeted.”

Captain Joseph Abbott of the 7th New Jersey Volunteer Infantry, for example, “was shot in the forehead and instantly killed while waving his sword for encouragement” at the Second Battle of Bull Run. Abbott's courageous display was admirable—but, equally, that gesture drew the attention of sharpshooters. As Stonewall Jackson had logically remarked after learning one of his Rebel sharpshooters had shot an especially courageous Union officer, “I want the brave officers of the enemy killed off. Their death insures our success.”

It wasn't only captains who drew fire by their gestures. At Fort Donelson, CSA Lieutenant Colonel Alfred Robb rode his white horse among his men, cheering them and waving his arm—and then a Union

sharpshooter shot him dead. The commander of the Union's 3rd Division at the Second Battle of Kernstown, Brigadier General James Mulligan, too, rode among his soldiers, halted and raised up on his saddle to cheer—and that's when a well-timed distant volley, a simultaneous engagement by seven Rebel sharpshooters, struck him down. “He probably would not have been killed,” wrote a veteran of the action, “but for the persistency of his color guard in waving a flag” beside him. They may as well have raised a sign, “Shoot here!”

Another senior officer who boldly posed beside his unit colors was Colonel Leander Stem of the 101st Ohio Infantry. When his regiment began to waiver at the Battle of Stones River, he shouted to his men, “Stand by the flag now, for the good old State of Ohio.” Instantly he fell, mortally wounded.

A distinguished upbringing provided no protection from sharpshooter fire. Theodore Winthrop, a direct descendent of Massachusetts' first governor, a Yale graduate, and a successful author, was on the staff of Union Major General Benjamin Butler. On 10 June 1861, watching Rebel forces rout Butler's



Some officers believed their conspicuous actions and gaudy uniforms inspired their troops, but frequently this also drew sharpshooter fire.

troops, Winthrop ran among the fleeing soldiers, jumped on a log, and shouted, "One more charge and the day is ours!" He'd hardly spoken the last word when a sharpshooter's bullet killed him, "a meaningless casualty of a day already lost."

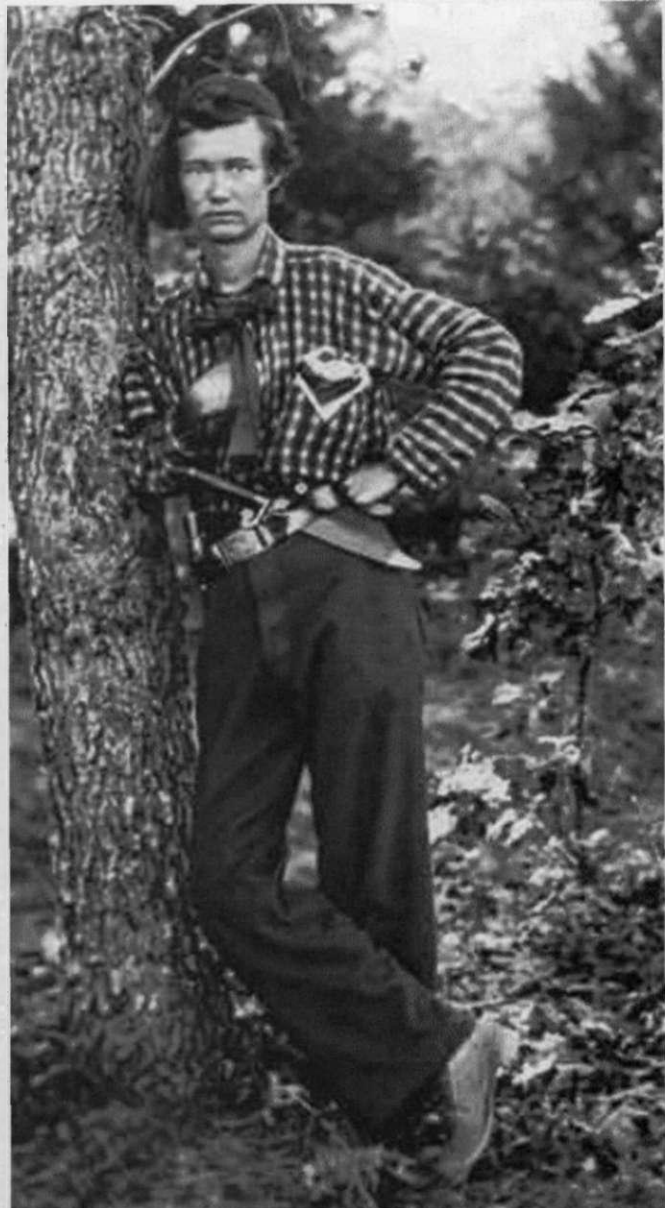
Conspicuous clothing—plumed hats, for instance—also drew sharpshooter fire. Colonel Gilbert Elliot, commanding the 102nd New York Volunteers, went forward at Lookout Mountain to lead his regimental skirmishers—wearing a bright red cape. One unit history notes, "He wore a full uniform with a red-lined cape . . . making a conspicuous mark, and he was the first man hit in the engagement."

Such questionable judgment was not a Yankee monopoly. Major Abner Carmichael, executive officer of the 26th North Carolina, a man of unquestionable courage, was standing beside his regimental commander when "a bullet entered his mouth and exited the back of his neck," killing him. As that unit's history observes, "It was possible that the Federal [sharpshooter] who fired this shot saw a small Confederate flag, three by four inches in size, that was mounted on a miniature staff attached to Carmichael's cap."

Depending on the range, indeed, a sharpshooter's telescope may have honed in on that display of patriotism—or, as he saw it, a target indicator.

Less ostentatious actions could draw sharpshooter fire, too. In direct view of the enemy lines at Yorktown, Union Lieutenant Colonel Francis W. Palfrey "was crouching down examining the enemy's works with a glass, when a ball, fired from a rifle pit by a Rebel sharpshooter, struck his knee and shattered the bones down to the middle of the calf." Lieutenant Colonel Palfrey survived, but surgeons had to amputate his leg.

Saluting within view of the enemy could be dangerous, too. At the Battle of Kennesaw Mountain, Major General M.D. Leggett was walking among the men of the 50th Ohio when Captain William Neal spotted his division commander. Captain Neal snapped to attention, saluted—and was struck dead by a sharpshooter's bullet that passed through his body and killed a horse. Major General Leggett, the likely target, was not injured.



Expressing pride, early in the war some units wore colorful uniforms, like the checkered shirt of this 4th Michigan Regiment private. Later they knew better.



A useful sharpshooter aiming point: the bright brass shield on Union infantrymen's chest cross-strap.



By midwar, the brass shield "aiming point" had been eliminated.

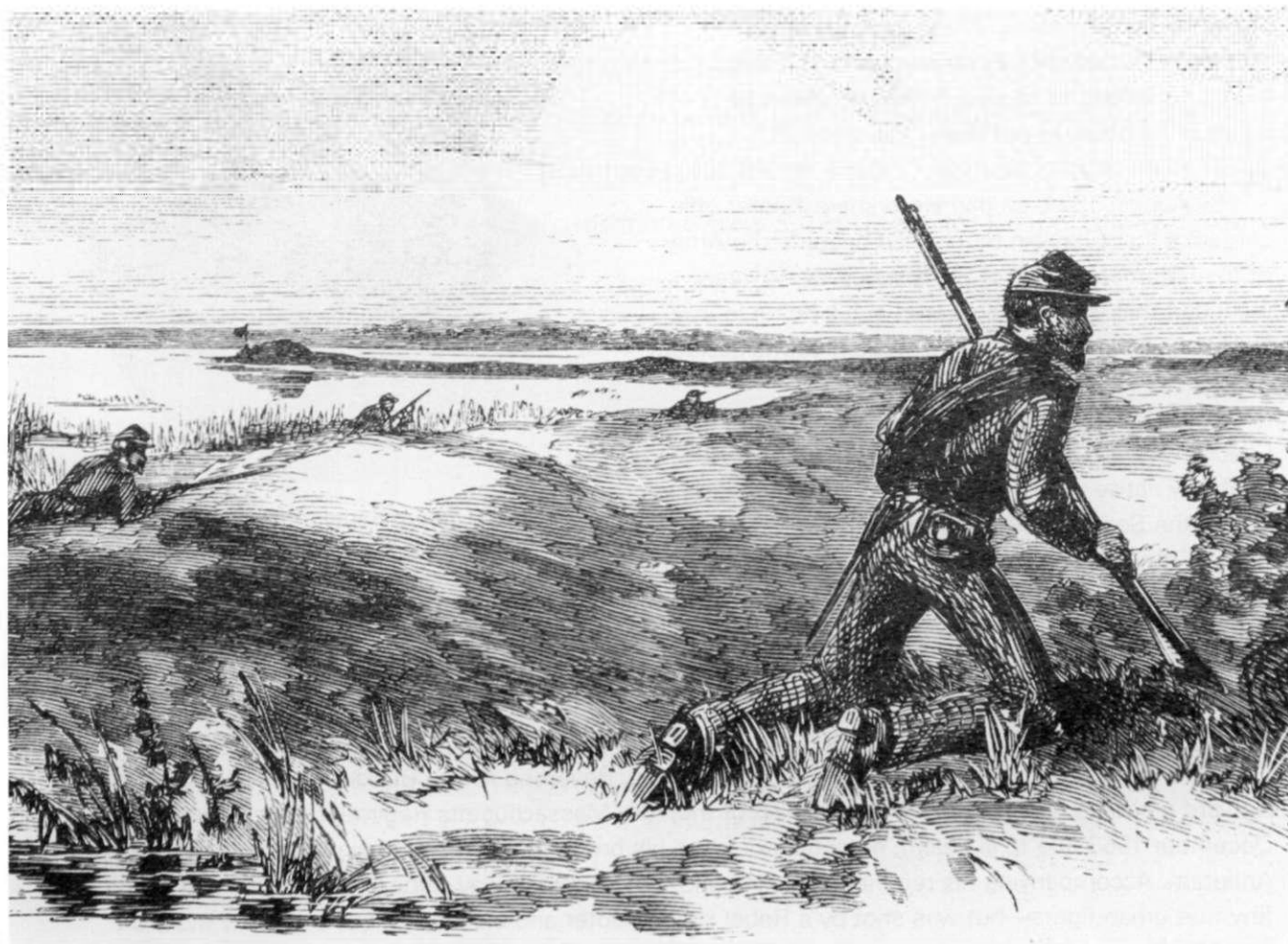
Understandably, as the effectiveness of sharpshooting grew, there were attempts to reduce the "signature" or conspicuousness of uniforms. Early in the war, the cross-strap on Union infantrymen's chests had a bright brass shield at its center, which soon became a useful aiming point for long-range shooting. The decorative shield was eliminated, leaving only the plain strap. So many Union officers were being shot that General James Rosecrans' Army of the Cumberland issued General Order No. 174 on 25 July 1863. "In order to prevent the disorganization of the army, its officers being picked off by the enemy's sharpshooters," the order began, then detailed changes in displays of rank to make officers more difficult to distinguish. During the trying days of the Petersburg siege, when Union soldiers fell night and day to Confederate sharpshooter fire, the 9th Corps banned bright brass fixtures on cartridge cases and belts.

All such measures, however, had only a limited effect.

item in a lengthy dispatch, which began, "I have the honor to report that our sharpshooters on yesterday afternoon killed one of the enemy's sharpshooters and wounded another."

Many accomplished sharpshooters who had withstood the test of battle and the full panoply of enemy countermeasures—artillery fire, cavalry assaults, infantry volleys—found it impossible to resist the deliberate, calculated efforts of an enemy sharpshooter who understood his foe. Francis M. Ferguson, a sharpshooter with the 4th Regiment of Kentucky Infantry, "was a brave man, and . . . one of the best shots in the division." During the Atlanta Campaign alone, he'd reportedly shot 25 Union officers, "principally mounted." With that kind of record, Ferguson likely drew the attention of his Union counterparts, for shortly afterward he was shot dead by one well-aimed bullet to his brain.

Also during the Atlanta Campaign, at Kennesaw Mountain, sharpshooter Henry Goldsmith of the 16th South Carolina was shot dead, "while taking aim at a sharpshooter on the other side." He, too, was much accomplished and "a fine shot, the second best in the regiment."



Union sharpshooters at Fort Wagner, South Carolina, maneuver against their Rebel counterparts.

Fighting Chaplains

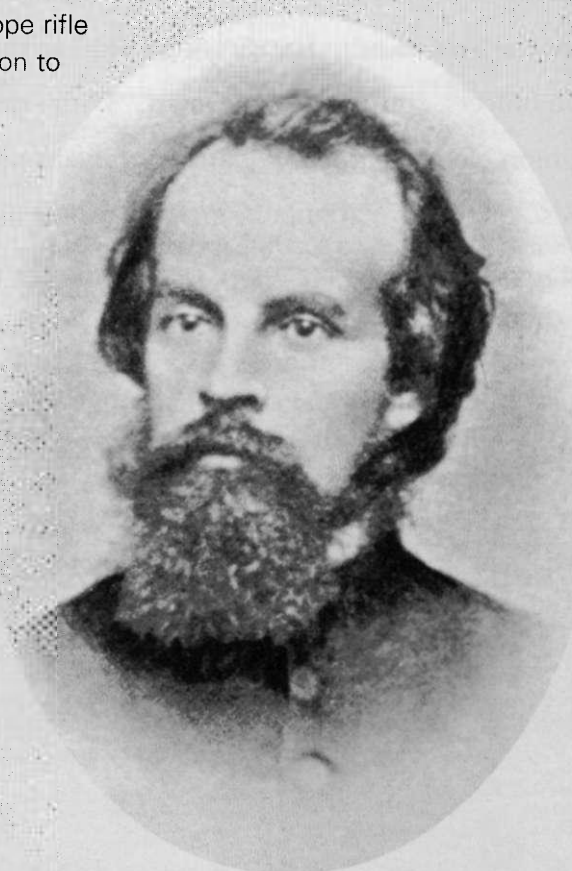
Chaplain Lorenzo Barber, who ministered to the men of the 2nd U.S. Sharpshooter Regiment, arrived at the unit's 1861 tryouts like any other recruit—with a heavy-barreled target rifle. Earning his membership by shooting skill—and acclaimed as “one of the best shots in the army”—Chaplain Barber both served the sharpshooter's souls and dispensed well-aimed fire at the enemy.

Nicknamed “the Fighting Parson,” he “had his telescope rifle sights marked for every 50 yards,” and could be counted on to give the correct range to any distant target. Sharing the hazards of his countrymen, at Chancellorsville he engaged Rebel soldiers of the 23rd Georgia and found no contradiction with his religious beliefs. As one Berdan Sharpshooter put it, “His *faith* was in the ‘Sword of the Lord and of Gideon,’ but his best *work* was put in with a twenty-pound telescopic rifle which he used with wonderful effect.” Sharpshooter Wyman S. White explained, “Chaplain Barber shot as he prayed, or in other words he helped to answer his own prayers by doing all he could to put down the rebellion.”

By August 1864, so thin were sharpshooter officer ranks that Chaplain Barber had become the Army of the Potomac's Chief of Sharpshooters. Severely wounded that year, he recovered at his home in Troy, New York, only to die later in a tragic firearms accident.

The Confederacy had somewhat of a counterpart to Chaplain Barber, a Baptist Minister, Isaac Taylor Tichenor. A Kentucky native who had preached and had congregations across the South, in 1861 Reverend Tichenor was chaplain of the 17th Alabama Regiment. Like Barber, he both preached to the soldiers and fought alongside them, acquiring a reputation as a keen-eyed sharpshooter. At the Battle of Shiloh he rallied the regiment's wavering lines and helped save the day. For part of 1862, Reverend Tichenor served similarly with General Braxton Bragg's army, then went back to civilian religious duties.

Other chaplains took up both the cross and the rifle. Reverend Arthur Buckminster Fuller, an 1843 Harvard graduate, volunteered to be chaplain of the 16th Massachusetts Regiment. Discharged on 10 December 1863 due to ill health, he could not leave his brethren, for the following day was the Battle of Antietam. Accompanying his regiment, rifle in hand, he fought his way through the town—one of the war's few true urban fights—but was shot by a Rebel sharpshooter and died in front of a grocery store on Caroline Street.



Chaplain Lorenzo Barber, “the Fighting Parson” of the 2nd U.S. Sharpshooter Regiment.

The Reverend Francis Eugene Butler, a Princeton graduate with a congregation in Paterson, New Jersey, joined the 25th New Jersey Regiment as the unit chaplain. On 4 May 1863, "learning that some men of the Connecticut regiment on the right were suffering and in need of surgical assistance, he went to their relief and was shot by a sharpshooter and died the next day."

The Reverend Daniel Foster, a Dartmouth graduate and staunch abolitionist, in 1854 was chaplain of the Massachusetts House of Representatives. In 1857 he was elected to the Kansas House of Representatives to keep that state from becoming a haven of slavery. In August 1862, Reverend Foster went to war as chaplain of the 33rd Massachusetts Volunteers, but that was not enough for the activist minister. Commissioned a captain in the 37th U.S. Colored Troops, he went into direct combat and was killed by a Confederate sharpshooter at the Battle of Chapin's Bluff on 30 September 1864. An eyewitness reported that Reverend Foster "made a valiant but unsuccessful effort to turn himself around, so that he could make good on his vow to die facing the enemy." He was buried in West Newbury, Massachusetts, at the Pleasant Street Cemetery.

Whether employed as here—to hunt enemy sharpshooters—or to suppress artillery, eliminate leaders, or skirmish the flanks, sharpshooters contributed to every major action of the Civil War, sometimes tipping the scales to victory or defeat at the most critical moment. To better recognize how these marksmen made their contributions, we need to look beyond tactics and techniques and view sharpshooting in the wider context of the war's most significant battles. At these critical times, I have discovered, the contribution of precision sharpshooter fire was much greater than previously realized.

SHARPSHOOTERS IN BATTLE

The great majority of Civil War casualties, without question, were inflicted by artillery and ordinary rifle fire. Though no such reliable statistics exist, I'm fairly certain that less than 5 percent of combat losses—perhaps only 2 or 3 percent—resulted from the deliberate fire of sharpshooters.

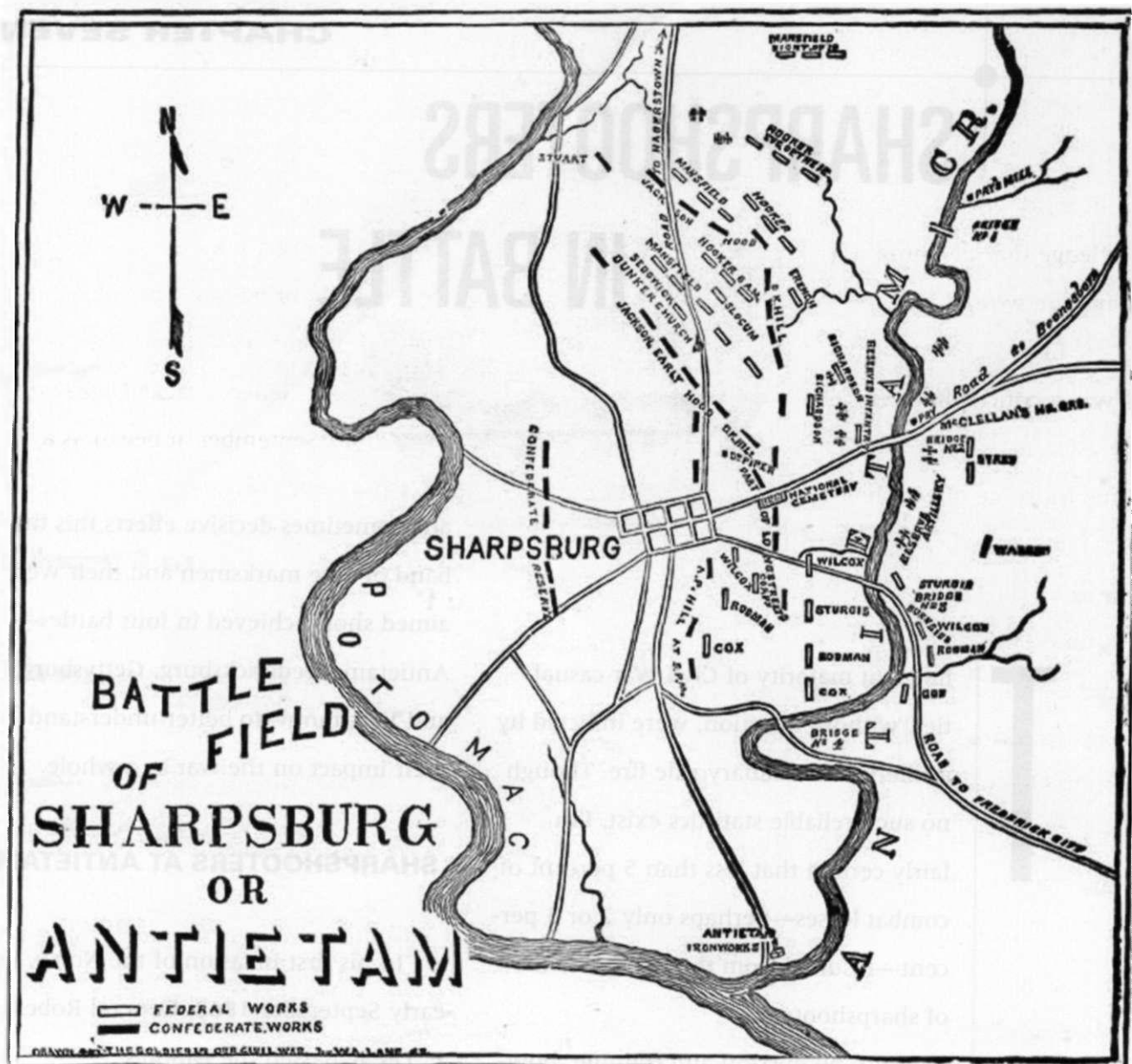
Both by mission and training, however, the goal of these few precision shooters was not to inflict mass casualties. Rather, it was to selectively engage important targets at critical times and places, and in that, as we'll soon see, they succeeded well beyond what has generally been realized.

Let us consider, then, the dramatic

and sometimes decisive effects this tiny band of elite marksmen and their well-aimed shots achieved in four battles—Antietam, Fredericksburg, Gettysburg, and Vicksburg—to better understand their impact on the war as a whole.

SHARPSHOOTERS AT ANTIETAM

In his first invasion of the North, in early September 1862, General Robert E. Lee bypassed the Union's Washington-area troop concentrations to boldly ford the Potomac River 60 miles to the northeast. With Lee's 55,000-man army threatening Baltimore and Philadelphia, Union General George B. McClellan hastily assembled an army of 84,000 men and marched north to head him off.



Realizing that Lee must transit the Blue Ridge Mountains through two key passes, Turner's Gap and Fox's Gap, McClellan hurried Major General Ambrose Burnside forward with two Union Army corps, resulting in the first clash on 14 September.

Finding the Confederates already there, Burnside's IX Corps commander, Major General Jesse Reno, assaulted the hill mass at Fox's Gap. Delays slowed his advance, and then the determined Rebel defenders bogged it further. At 6 P.M. Reno rode the lines, encouraging his troops, and then paused with several officers to observe enemy positions. Lifting a telescope to his eye, General

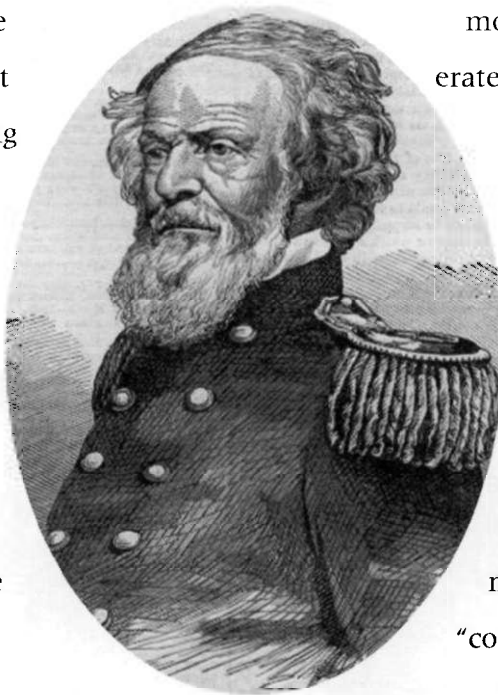
Reno had no sooner spotted them than a sharpshooter's slug struck him. "He fell," a *Harper's Weekly* reporter wrote, "and, from the first, appeared to have a knowledge that he could not survive the wound. . . ."

One historian observed this was a critical moment, as "confusion spread among Union regiments, some of which were fresh in battle and were at that time being moved to the front." The 21st New York, fighting its way up a ravine, mistakenly turned in the wrong direction; fortunately, the 2nd U.S. Sharpshooter Regiment went forward in its place, dealing considerable destruction with their rapid-loading Sharps rifles. By dark, despite Reno's death, the Rebels had been pushed off the hill. Confederate General D.H. Hill announced that Reno was "killed by a happy shot from the 23rd North Carolina," with the sharpshooter later identified as Sergeant Charles Bennett, who'd fired "at long range."

Losing control of the mountain



In the opening phase of Antietam, a Confederate sharpshooter killed Union General Jesse Reno, the IX Corps commander.



Union Major General Joseph K.F. Mansfield was killed by a Rebel sharpshooter just as the main battle began at Antietam.

passes, General Lee fell back 5 miles, taking up defensive positions just beyond Antietam Creek, near Sharpsburg. The methodical, ever-cautious McClellan followed, taking two full days to bring his Army of the Potomac into position. When McClellan attacked, early on 17 September, it began as a multiple corps assault from Lee's north, which unhinged as quickly as it began. At 7:35 A.M., Major General Joseph K.F. Mansfield, commander of the XII Corps, was mortally wounded by a Confederate sharpshooter's bullet.

This was bad enough, but soon afterward his adjacent Union Corps commander, Major General Joseph Hooker, also was seriously wounded by a Confederate sharpshooter. The targeting of Major General Hooker was made simpler because he rode a "conspicuous white horse."

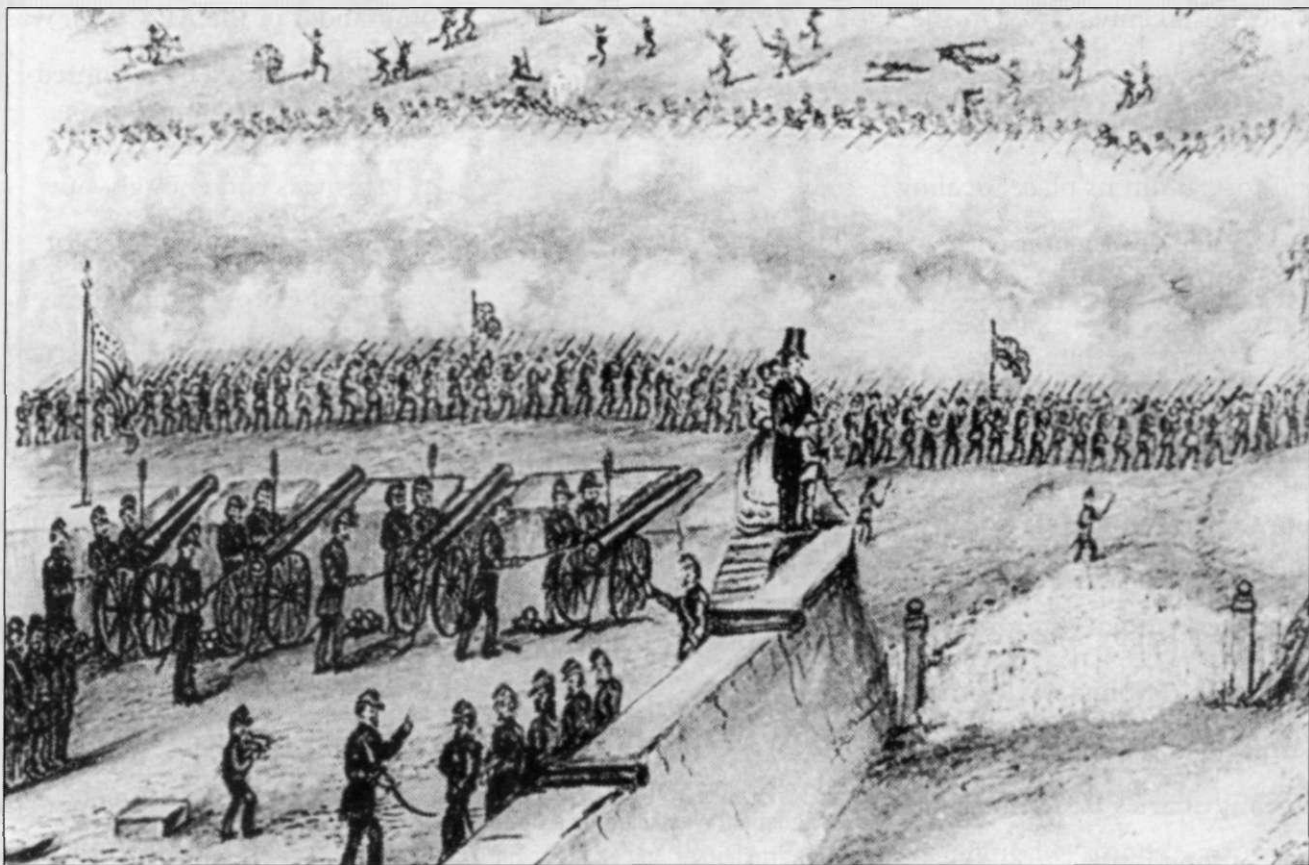
Imagine the chaos: in only four days, the Army of the Potomac had lost half its corps commanders, all to sharpshooters. The effect at

The Day They Shot Lincoln—Almost

In July 1864, as Union armies neared the Confederate capitol at Richmond, CSA General Jubal Early was ordered to launch a diversionary attack toward Washington in hopes he could draw away Northern forces. Striking from Virginia's Shenandoah Valley, Early's feint became a successful offensive that caught Lincoln's generals off guard and made it to the capitol's defenses, within sight of the uncompleted capitol dome.

The spectacle of combat within earshot of the White House drew out Lincoln and his entourage to Fort Stevens, one of 68 forts ringing the District of Columbia, located at the intersection of today's Quakenbos and 13th Streets. The president, famous for shooting rifles on the White House lawn and riding horseback among his generals, did not hesitate to climb atop a parapet to watch skirmishing in the distance, silhouetting himself perfectly against the skyline. Of course, so perfect a target drew sharpshooter fire, with rounds zinging the air. An eyewitness wrote in his diary:

"The enemy was firing lively from the bushes in front of the fort and it was dangerous for any person to look over the parapet, but the President was bound he would look over and see what was going on. Soon a sharpshooter fired at him, and he dodged, in doing so tipped over the pass box on which he was sitting and tumbled down."



President Abraham Lincoln at the parapet of Fort Stevens, perfectly silhouetted for a sharpshooter's fire.

That near miss deflected off a cannon barrel and seriously wounded Charles V. Crawford, surgeon of the 102nd Pennsylvania Volunteer Infantry. Prior to the president's arrival, two men had been killed at Fort Stevens by sharpshooter fire. Mary Todd Lincoln, the president's wife, two years earlier had lost a brother, Captain Alexander A. Todd, to a sharpshooter, so the president should have had a respect for the danger of precision rifle shots.

As it was, Lincoln only abandoned the parapet when a young aide shouted, "Get down, you damn fool!" At the time, the youthful officer was no one of prominence, but many years afterward he became respected as one of the country's finest Supreme Court Justices, Oliver Wendell Holmes.

On the Confederate side, there was no inkling of who these men in civilian clothing were that appeared in the sharpshooters' sights. Firing from where today's Walter Reed Medical Center stands, Confederate Captain Robert E. Park noted, "the sharpshooters . . . suppose they were 'Home Guards' composed of Treasury, Post Office and other Department Clerks."

Soon afterward, with the federal army rapidly reinforcing—and his diversion having succeeded—General Early withdrew. "We didn't take Washington," Early told his staff, "but we scared Abe Lincoln like hell."



War-time photo of Fort Stevens, located on the edge of Washington, D.C.

Antietam was serious and immediate. "The loss of two fighting corps commanders," a West Point textbook explains, "left no one in overall control of McClellan's 'main attack' on the Confederate left."

Coordination fell apart; command and control fell apart. Units advanced piecemeal, allowing General Lee to counter them one at a time. One isolated unit was the 2nd U.S.

Sharpshooter Regiment, which lost 66 men but

poured such heavy, accurate fire into a sunken road—"Bloody Lane"—that the men inflicted several times their own losses. The Sharpshooter's commander, Colonel Henry A.V. Post, was severely wounded and would not return to active service.

With fighting in the north tapering off, action shifted to the south where Major General Ambrose Burnside's four divisions were massing to assault a bridge on Antietam Creek. Had Burnside's forces struck simultaneously with Hooker and Mansfield in the north, the field

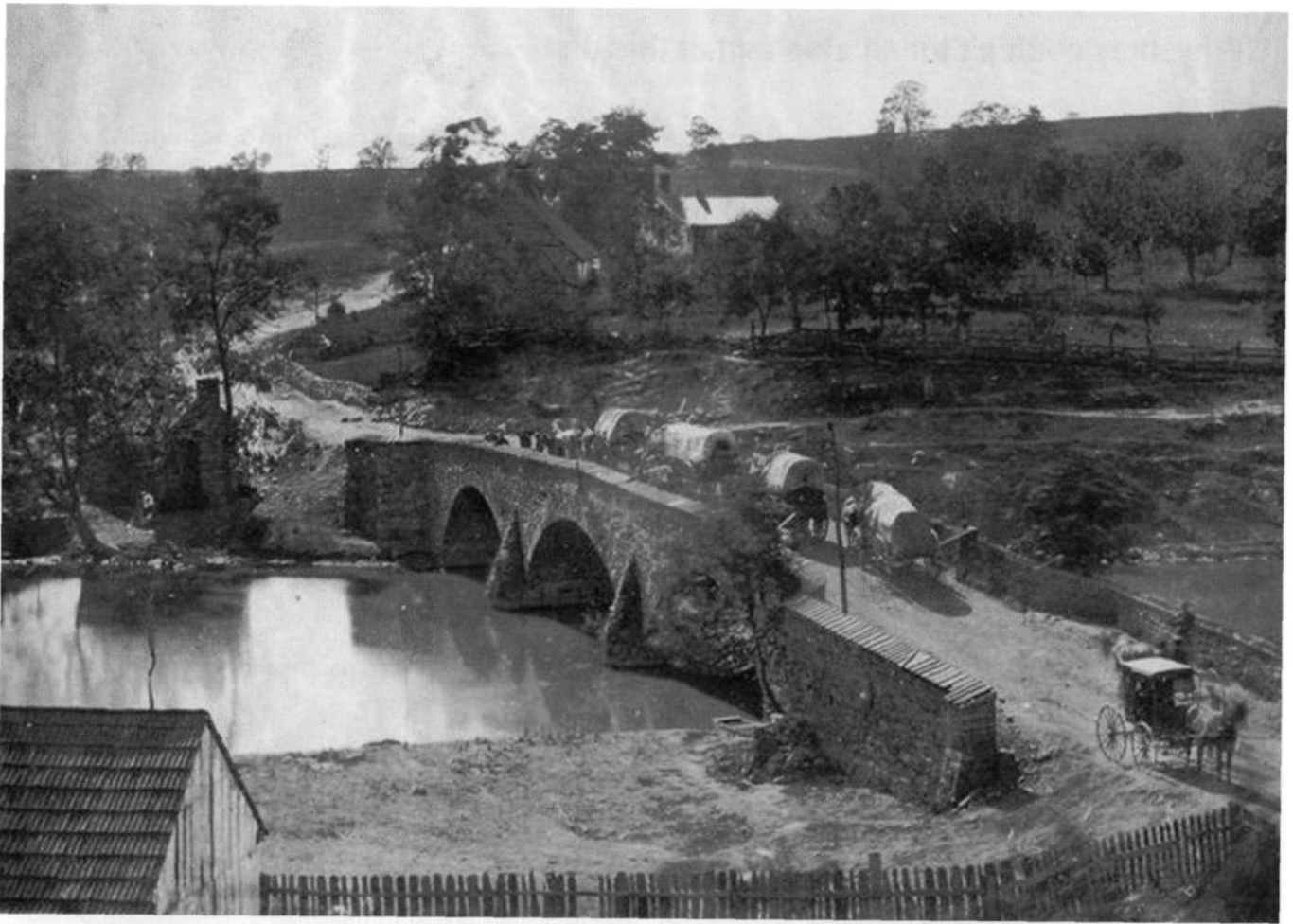


Riding a "conspicuous white horse," Union Major General Joseph Hooker was seriously wounded early in the Battle of Antietam.

should have been theirs. But Burnside was not ordered to launch his assault until 10 A.M., allowing plenty of time for Confederate sharpshooters to occupy buildings less than 200 yards beyond the creek and position themselves on a wide hillcrest some 500 yards west. Even worse, the Union approach to the bridge, a dirt road, paralleled the creek across open ground, allowing flanking fire as the men rushed it.

The first assault, led by the 11th Connecticut Regiment, took heavy, accurate rifle fire; some 139 men fell, including Colonel Henry Kingsbury, the regimental commander.

An hour later came a second assault by fresh troops, and the result was the same: Union soldiers clogging the bridge and drawing an intense concentration of sharpshooter fire. Finally, the third assault, launched at 12:30, made it across, forcing back the Rebel sharpshooters, whose well-aimed shots had delayed Burnside for three critical hours. Another delay followed while



Looking west across Antietam Bridge. Rebel sharpshooters in the facing building (200 yards) and ridgeline (500 yards) shot hundreds of assaulting soldiers.

ammunition was brought forward; then, just as Burnside was about to renew his attack, a fresh Confederate division arrived and forced him to fall back to Antietam Creek.

While this was happening, four Confederate generals conferred on a facing ridge, inspiring a Yankee sharpshooter to attempt a long-range shot. It connected with Brigadier General Lawrence O'Bryan Branch, a brigade commander in Hill's Division, killing this son of a distinguished family that included governors of both Florida and North Carolina. Reminiscent of the shooting of Union General Reno three days earlier, Branch was shot "as he was in the act of raising field glasses to his eyes."

Branch's death did not alter the battle's outcome, for the die already had been cast. The Battle of Antietam had cost 25,000 Union and Confederate soldiers killed and wounded, with no decisive result. Many historians blame McClellan's ineptness for failing to achieve victory despite a substantial advantage of numbers. However, in addition to Lee's superior operational art, his army's wiser use of

"Why, they couldn't hit an elephant at this distance . . ."

Few last words can compete with those of Union Major General John Sedgwick, who, seeking to reassure artillerymen that long-distance enemy sharpshooter fire was more an irritant than a danger, stood openly beside them and uttered his famous quote.

The setting was Spotsylvania, Virginia, the date 9 May 1864. One of the Union Army's most senior officers, Sedgwick commanded the VI Corps, incorporating three infantry divisions and an artillery brigade, approximately one-quarter of the entire Army of the Potomac. Dissatisfied with the way his artillery was arrayed, Sedgwick wanted to reposition a battery, located at an angle in the lines.

"Seriously, general, I beg of you, not to go to that angle," his chief of staff, Brigadier General Martin McMahon, requested. "Every officer who has shown himself there has been hit, both today and yesterday." Sedgwick, who had been in action since the opening days of the war, perhaps had grown inured to danger or, as McMahon thought, too quickly forgot the warning.



Major General John Sedgwick, commanding the Union VI corps, killed by Rebel sharpshooter Ben Powell at Spotsylvania, Virginia.

When Sedgwick later approached the guns, a sharpshooter's bullet whizzed past, sending a crew scrambling for cover. Sedgwick laughed and asked, "What? Men dodging this way for single bullets! What will you do when they open fire along the whole line? I am ashamed of you. They couldn't hit an elephant at this distance." Seconds later, a soldier walked by the general and another bullet flashed past, sending the young soldier diving to the ground. Sedgwick touched him with the toe of his boot and said, "Why, my man, I am ashamed of you, dodging that way," and then repeated his words: "They couldn't hit an elephant at this distance."

The young soldier stood, saluted, and explained that he'd previously survived fire by dodging. "I believe in dodging," he said. Sedgwick laughed and replied, "All right, my man; go to your place."

Again, a single bullet zipped in, this time "closing with a dull, heavy stroke," and Sedgwick, "the most beloved general in the Army of the Potomac," fell over, killed instantly by a long-range Whitworth's bullet that struck just below his left eye.

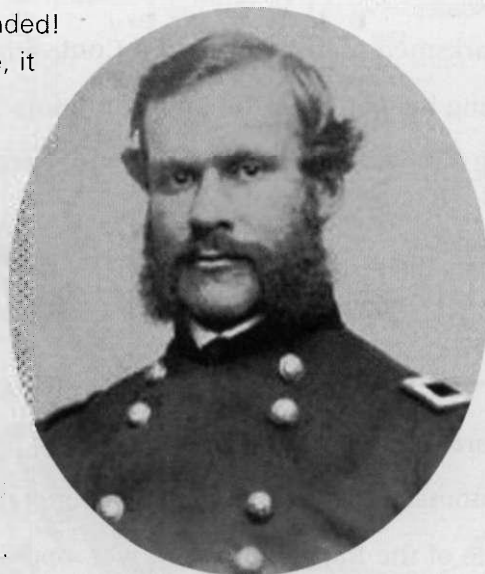
On the Confederate side, Rebel sharpshooter Berry Benson heard shouting far down the line, which raced his way like a locomotive, growing in

pitch and volume until he heard, "Grant's wounded! Grant's wounded! Grant's wounded!" Then "Grant's dead! Grant's dead!" Of course, it was not General Grant, although a senior Union officer had died.

Georgia sharpshooter Benson believed that the fatal shot was fired by Ben Powell, using a Whitworth rifle. The day after Sedgwick was shot, Benson sought out Powell and actually had a chance to fire that very rifle, commenting only that "it kicked powerfully." Confederate Major William Dunlop, in his authoritative *Lee's Sharpshooters*, also attributes the shot to Ben Powell. As Dunlop wrote, "Powell reported at once that he had killed a Federal general, but we knew not his name until it came out a few days later in the Northern papers. . . ."

The affable but entirely competent Sedgwick was sorely missed. Learning of his death, General Ulysses S. Grant remarked that "to lose Sedgwick was as bad as to lose a whole division of infantry."

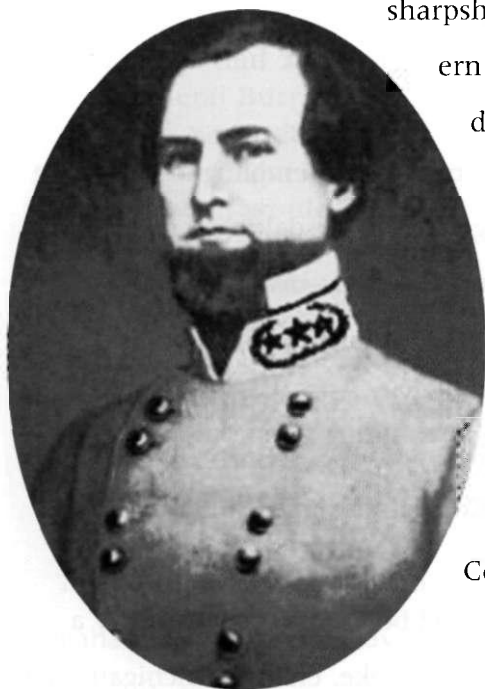
A statue of Sedgwick was dedicated at West Point in 1868, and to this day academically challenged cadets—at midnight, before finals—sneak to the statue and spin "Uncle John's" spur rowels, in belief his spirit will help them pass.



Only one day after General Sedgwick's death, Union Brigadier General Thomas Stevenson, commanding the 1st Division, also fell to a sharpshooter at Spotsylvania.

sharpshooters must be considered. Decapitating the Union Army's northern flank leadership in the opening minutes of battle, combined with delaying Burnside's advance a full three hours, had an effect far disproportionate to the number of marksmen involved.

The Union Army, by contrast, misemployed its sharpshooters throughout the fight. The 2nd U.S. Sharpshooter Regiment was fielded as ordinary infantry, while the 1st Regiment was held in reserve throughout the battle. Imagine the effect if they had been called on to counter the enemy sharpshooters delaying Burnside's forces at Antietam bridge. Incredibly, the 1st Company of Andrews Sharpshooters, armed with heavy telescope rifles, was pushed forward as assault troops—and they died by droves, cut down by rapid-reloading Rebel infantrymen. Their commander, Captain John Saunders, and executive officer, Lieutenant William Berry, were among the 11 dead, along



CSA Brigadier General Lawrence O'Bryan Branch was killed by a Union sharpshooter too late to make any difference at Antietam.

with another 21 wounded—more than half their strength. Even with these losses, the Massachusetts marksmen managed to put a Confederate artillery battery out of action for most of the day. The same thing happened to the 2nd Minnesota Sharpshooters, whose 29 men fought as ordinary infantry, losing 20 “within a space of time not exceeding 10 minutes.”

FREDERICKSBURG

The Union counterstroke following Antietam, launched some 10 weeks later, involved a southward thrust from Washington aimed at the Confederate capital at Richmond. The Army of the Potomac, now commanded by General Burnside, massed 50 miles south of Washington, on the north side of the Rappahannock River, opposite the town of Fredericksburg. Burnside planned to cross his 120,000 men on float bridges on 26 November, well before Lee’s 85,000-man Army of Northern Virginia could arrive to oppose him.

Delay begot delay, however, and by the morning of 10 December, when Union engineers finally began assembling their three pontoon bridges, the situation had changed dramatically. The 250-yard-wide Rappahannock River was covered by massed Confederate sharpshooters from Brigadier General William Barksdale’s Mississippi Brigade, who’d heavily fortified every cellar and stone building along Fredericksburg’s mile-wide riverfront. And beyond, stretched along the hills a mile deeper, stood Lee’s entire army.

At sunrise on 11 December, men of the 50th New York Engineers began assembling and shoving into position sections of pontoon bridges, and, as quickly as the fog lifted, Barksdale’s sharpshooters began dropping them, one after another after another. These chosen riflemen—drawn from the 13th, 17th, 18th, and 21st Mississippi Infantry Regiments—made life such hell that the engineers had to abandon the half-built bridges.

Thirty-six Union artillery pieces poured shells into the waterfront buildings, but they had little effect. As quickly as the engineers returned, the Rebel sharpshooters again dropped them in droves. Adding more artillery fire did not work. Hours dragged past.

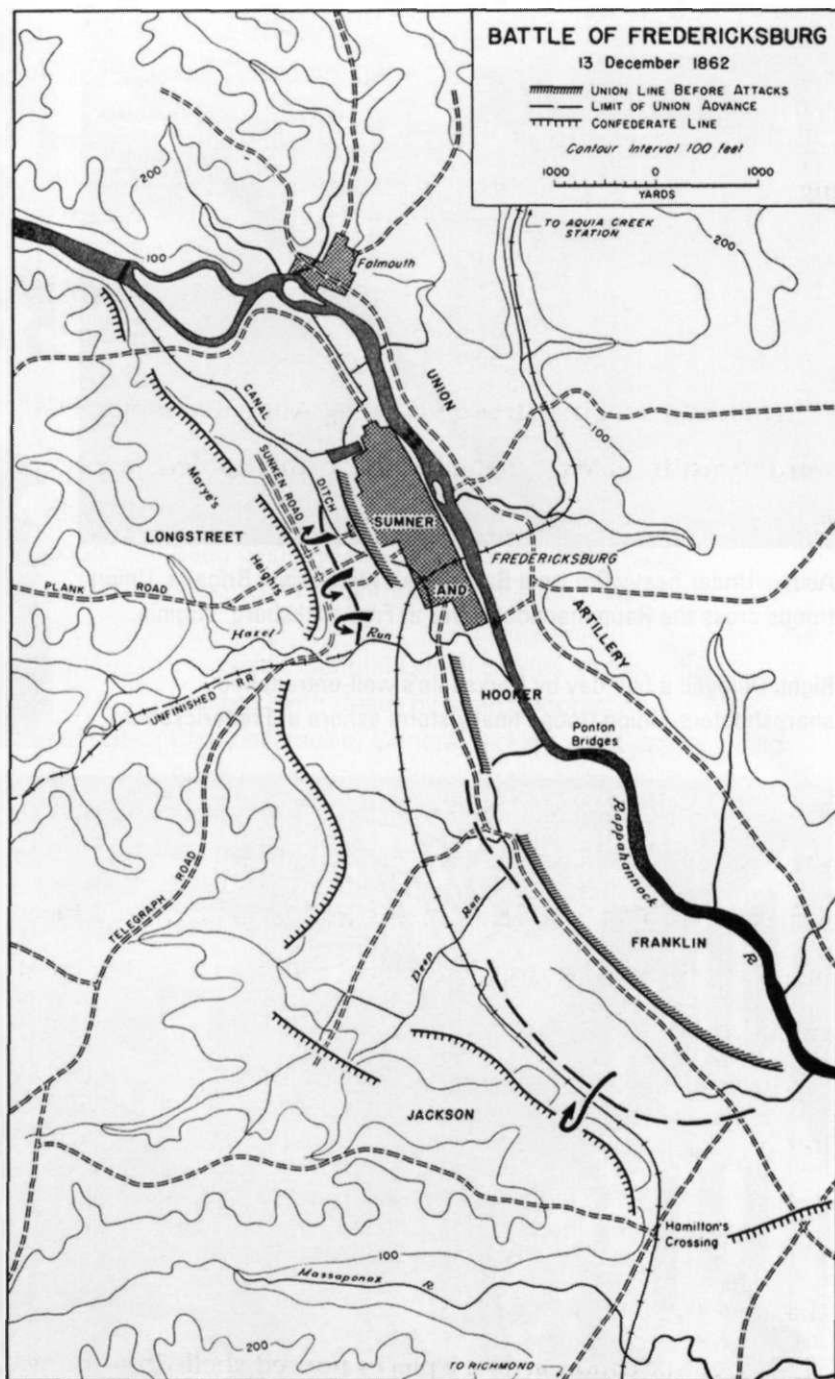
Finally, at 2:30 that afternoon, the 7th Michigan Regiment boarded boats and, supported by a heavy artillery barrage, paddled across the Rappahannock. Masked by smoke, enough Michigan men made it ashore to secure a toehold. The 19th and 20th Massachusetts Regiments followed, forcing back the sharpshooters and allowing the bridging to continue. According to Private Henry Ropes of

the 20th, "The orders to the whole brigade was to bayonet every armed man we found firing from a house, this being, I believe, contrary to the rules of war, but it was of course not obeyed."

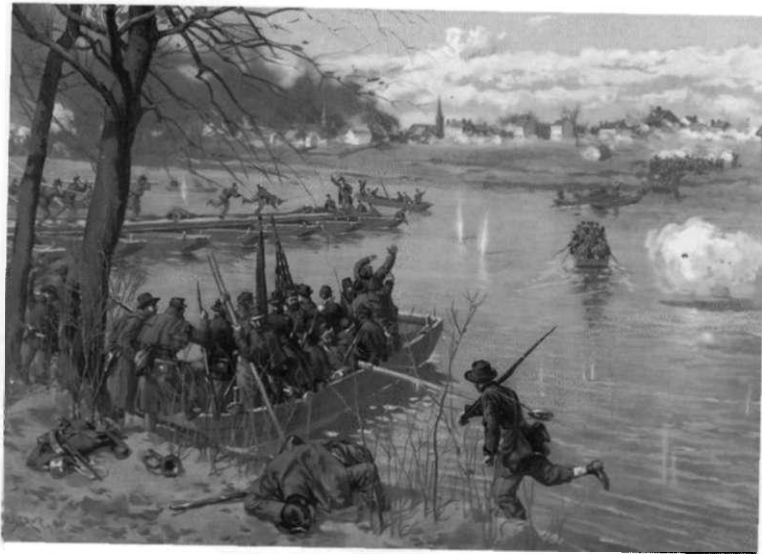
Engaging the withdrawing Rebel sharpshooters, the Union troops advanced into a carefully planned urban defense, causing "the most useless slaughter I ever witnessed," wrote Corporal A.W. Greeley of the 19th Massachusetts. Within 10 minutes, advancing one city block, the 20th Regiment lost 97 men.

Wyman White of Berdan's Sharpshooters observed:

"General Burnside was a loyal, patriotic man but he ought to have known . . . just what would be the outcome of crossing the river right into the face of an impregnable position defended by as brave an army as ever in battle, commanded by generals of high standing."



The battle raged for two more days. Far more Union soldiers died after crossing the Rappahannock, but the delay achieved by Barksdale's sharpshooters had so upset the Federal timetable that nothing quite synchronized afterward. By the afternoon of 13 December, an estimated 10,000 Union soldiers had been killed or wounded, double the number of Confederate casualties.



Above: Under heavy fire from Barksdale's Mississippi Brigade, Union troops cross the Rappahannock River at Fredericksburg, Virginia.



Right: Delayed a half day by Barksdale's well-entrenched sharpshooters, Union troops finally storm ashore at Fredericksburg.



The 19th and 20th Massachusetts Regiments suffered heavy casualties in the streets of Fredericksburg.

Close Calls

With hundreds of sharpshooters prowling battlefields, senior officers inevitably came within their range, especially while reconnoitering or rousing their frontline troops to victory. In many instances, as we've examined, the result was fallen leaders, sometimes at critical times and places.

As well, there were numerous narrow escapes, inspiring speculative "might have beens." On 22 August 1862, General Robert E. Lee, commander of the Confederacy's Army of Northern Virginia, rode forward to personally survey the terrain at Second Manassas—and returned with a bloodied cheek, the mark of a hair's-breadth miss by a Union sharpshooter. The following spring, while riding along the Plank Road between Fredericksburg and Chancellorsville, Lee again appeared in a sharpshooter's sight, compelling him and General Thomas "Stonewall" Jackson to retire to better cover. Almost exactly a year later, on 5 May 1864, "eight or ten [Union sharpshooters]" strayed behind Confederate lines and halted within view of General Lee. "Those adventurous blue coats, finding themselves in front of two brigades of Wilcox's division, made a rapid retreat," the Southern account concludes, "ignorant, most likely, that a very precious life lay for a moment at the mercy of their rifles."

Lee's counterpart, General Ulysses S. Grant, was not immune from hazard. At Hatcher's Run, on 27 October 1864, General Grant, accom-

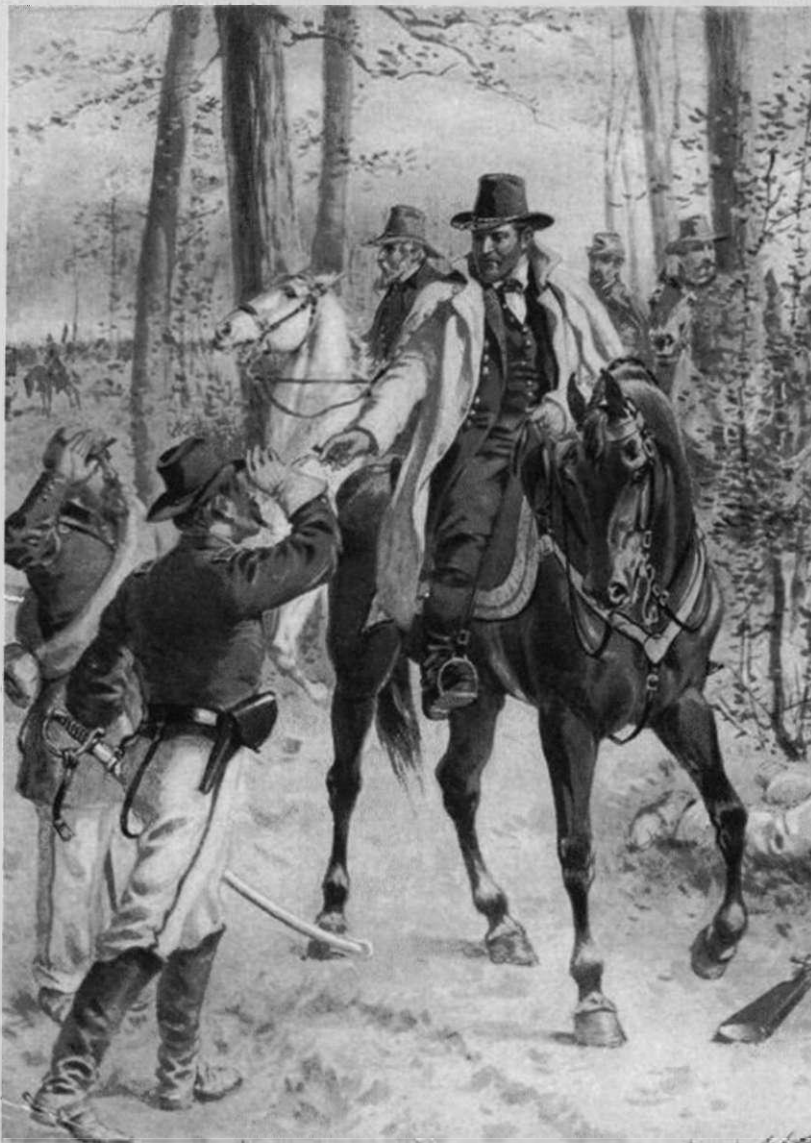
panied by General George Meade and his staff, rode forward to issue orders on a threatened flank. "General Grant, as was his constant practice," one history recalls, "wished to see the exact position of the enemy with his own eyes." No sooner had Grant halted than artillery fire accompanied by zinging sharpshooter's bullets impacted all around him—but he rode away, unhurt. An account in a Confederate newspaper, the *Charleston Mercury*, claims that Rebel sharpshooters narrowly missed Grant at Missionary Ridge on 17 September 1863, but that had to have been General George "Rock of Chickamauga" Thomas, for Grant was a thousand miles away.

Union General Daniel Sickles similarly had brushes with death by sharpshooter. At Chancellorsville, General Sickles and General David Birney met on a hill to view the fighting "in plain sight of the Rebels, when one of their sharpshooters marked them and fired with a target rifle," the *New York Herald* reported. The shot flashed harmlessly between the two generals, who repositioned

to safer ground. At Resacca, Georgia, on 12 May 1864, while "lounging under the trees" near an artillery battery, again Sickles drew long-range sharpshooter fire that came "unpleasantly close to Generals Sickles and [Major General Joseph] Hooker." Recall, too, that Hooker already had been wounded by a sharpshooter at Antietam, on 17 September 1862.



"LEE TO THE REAR!" Fearing Lee's exposure to enemy fire, Confederate soldiers halt their beloved leader. At least three times Lee appeared in Union sharpshooters' sights.



General Ulysses S. Grant also narrowly survived enemy sharpshooter fire.

Bottom, Virginia, on 27 July 1864, resulting in the amputation of two fingers of his right hand.

Union General Walter Gresham was shot in the knee by a Rebel sharpshooter near Atlanta on 20 July 1864. Surviving his wound, he was discharged but went on to become U.S. Postmaster General under President Chester A. Arthur.

Also during the Atlanta Campaign, Union Brigadier General August Willich, "while observing the enemy from the parapet of the Thirty-Fifth Illinois," was severely wounded by a sharpshooter, ending his military career.

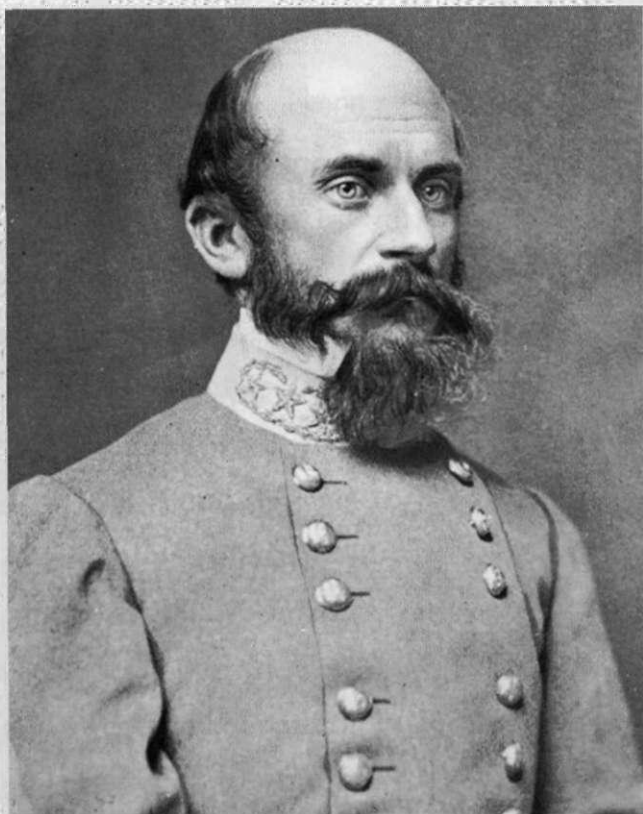
Union Brigadier General Francis Vinton, commanding the 3rd Brigade of the 2nd Division, was struck down by a Confederate sharpshooter at Fredericksburg. He, too, did not return to active duty.

CSA General Nathan Bedford Forrest, the South's legendary cavalry commander, almost met his doom via a Union sharpshooter, losing his mount at Fort Donelson to a bullet intended for his person. "The general was badly shaken," a Forrest biography notes, and perhaps explains why (cited on page 200) he later took up a rifle and personally shot a Yankee sharpshooter.

Perhaps the closest "miss" by a sharpshooter was Confederate Lieutenant General Richard Ewell, who was atop his horse when a long-range Yankee slug slammed into his leg at the Second Battle of Winchester on 15 June 1863. Happily observing the result, Ewell quipped to Brigadier General John Gordon, "It don't hurt much to be shot in a wooden leg!" You see, the eccentric Ewell had lost that leg at the Second Bull Run.

Closer Calls

Quite a number of generals from both sides were not so fortunate. Singled out by sharpshooters due to their uniforms or mounts or actions, they were wounded but lived. The least injured of them was Brigadier General John Barry, a Confederate officer hit by a sharpshooter at Deep



Confederate Lieutenant General Richard Ewell joked when he was shot by a Union sharpshooter—in his wooden leg.

whose bullet "entered at the lower left corner of his nose, and passed diagonally across his mouth, badly breaking his upper jaw and tearing out through his right cheek." The son of Revolutionary War General Nathaniel Greene, by 1892 he was the oldest surviving Union Army general and the oldest living West Point graduate. Suffering from his wound and in need of a pension for his family, he was enabled by a special act of Congress to take the oath of office at age 93 as a first lieutenant, his highest permanent rank, and retire the same day. He lived another five years. General Greene was the oldest first lieutenant in the history of the U.S. Army.

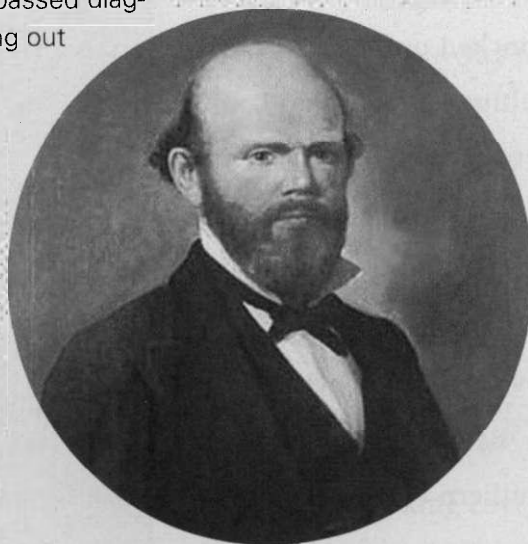
The saddest case I came upon of a wounded general is that of Brigadier General Patrick Robert Guiney, shot in the head by a Rebel sharpshooter on 5 May 1864 during the Battle of the Wilderness. Discharged due to disability, he attempted to continue his legal practice, but his permanent injury precluded him from pleading at trial. Sustained by sheer will, after a dozen years of therapy and suffering, he was found one morning kneeling beside a tree in a Boston park, dead at last from his terrible wound.

At Chattanooga, Tennessee, Union Major General John Palmer, a division commander, paused to look through the opening on a rampart and instantly was knocked down by a sharpshooter's slug and seriously wounded.

Union Brigadier General Albert L. Lee, commanding the 1st Brigade of Brigadier General Peter J. Osterhaus' division, was hit in the face and severely wounded by a Rebel sharpshooter at Vicksburg.

At Atlanta, two Union generals were wounded in two days. Brigadier General Joseph Lightburn received a serious head wound from a Rebel sharpshooter on 19 August 1864. Just two days earlier, Major General Grenville Dodge, commanding the Union's XVI Corps, was badly wounded by a sharpshooter. Recovering, Dodge became a wealthy post-war railroad executive and one of the founders of the General Mills Corporation.

In the fall of 1863, at the Battle of the Wauhatchie, Union Brigadier General George Sears Greene was badly wounded by a sharpshooter



Colonel William R. Marshall, commanding the 7th Minnesota Regiment, survived a serious sharpshooter wound to become his state's governor.

GETTYSBURG

General Robert E. Lee's second invasion of the North brought the 75,000-man Army of Northern Virginia into Pennsylvania's sleepy Cumberland Valley. The Army of the Potomac's newest commander, General George Meade, hurried his 85,000 Union troops northward, unsure of Lee's location. The two armies stumbled into each other just west of Gettysburg on 1 July 1863.

Rapidly, both sides began massing. General John F. Reynolds, the highly respected commander of the Army of the Potomac's I, III, and XI Corps, rode forward to personally position his arriving units. The fight had hardly begun when a Confederate sharpshooter noticed a distinguished rider escorted by officers and giving commands—that's all the Rebel marksman needed. His well-aimed shot instantly killed the highest-ranking Union officer to fall at Gettysburg. Adding to the confusion of an unclear, developing situation, Reynolds' untimely death and resulting command disruption contributed to the Confederates prevailing in that first day's fight.

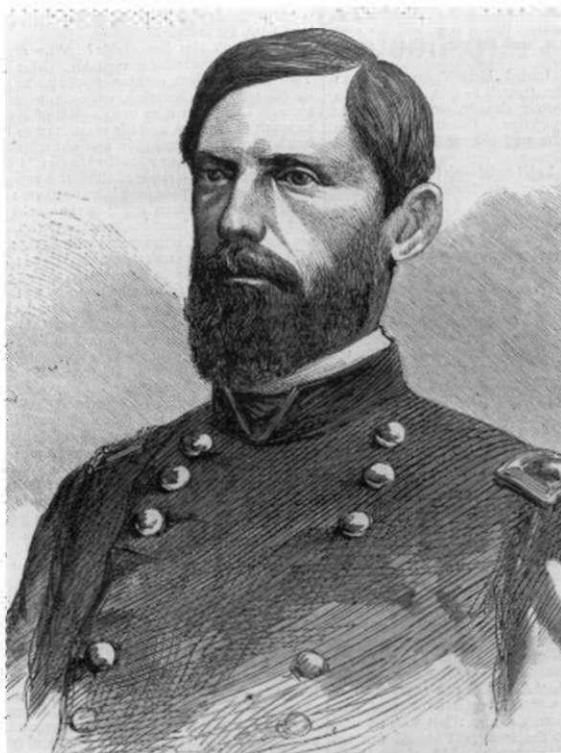
By dawn of 2 July, the Union Army had fallen back and was concentrating forces along defensive terrain on the 2-mile-long, north-south Cemetery Ridge, and in the northeast, atop Culp's Hill. The nearest Confederate troops were the 5th Alabama's sharpshooters, who fired upon the Federals from buildings they'd occupied in the town of Gettysburg, 425 yards north of the Yankee's northernmost position. In the attic at 309 Baltimore Street, a dozen marksmen had knocked out bricks as firing portals, while more sharpshooters reinforced a garret window at 401 Baltimore Street, and still more took up positions at 404 Baltimore Street, as well as behind and between several adjacent buildings.

Meanwhile, Lee's army fanned out along Seminary Ridge, parallel to and approximately a mile west of the Army of the Potomac. Significantly, this meant that the bulk of the sharpshooters of both armies were well beyond their rifles' maximum range, facing each other across open ground too devoid of cover even for rifle pits.

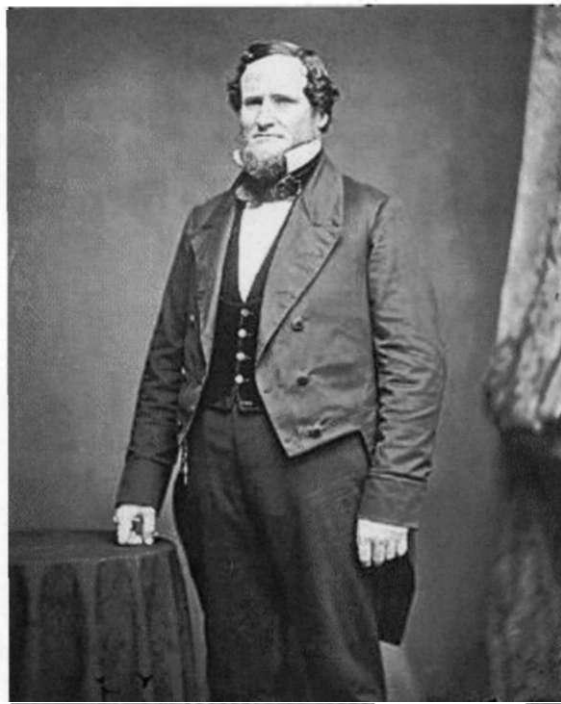
By the morning of 2 July, the 1st and 2nd U.S. Sharpshooter Regiments were arrayed at the southern end of the Union lines, skirmishing to the west. It was a stroke of luck, for they chanced upon CSA General James Longstreet's 30,000-strong assault force, hidden in the woods. Though Colonel Berdan had only 300 sharpshooters, he attacked and so startled the Rebel force that it delayed Longstreet's attack by 40 minutes—barely enough time for General Meade to reinforce his vulnerable southern flank.

Fighting erupted in the Federal center and south, with tens of thousands of rifles firing, making it all but impossible to distinguish between a single well-aimed shot dropping its target and simply a stray bullet striking an unfortunate soul. Confederate General William Barksdale was said to have been killed by a Union sharpshooter, shot off “his fine white charger,” but that’s hard to determine. Colonel Edward Cross, commanding a Union brigade, was almost certainly killed by a Confederate sharpshooter. Fighting raged with so many flying bullets that it all merged into one unending explosion.

Pressed heavily in the south, Union forces had to give ground, falling back toward a prominent hill, Little Round Top, unoccupied but for a 24-man signal detachment. Union



Commanding the Army of the Potomac’s I, III, and XI Corps, Major General John Reynolds was the highest-ranking Union officer killed at Gettysburg.



CSA General William Barksdale, shot off “his fine white charger,” was believed killed by a Union sharpshooter.

Major General Gouverneur Warren, chief engineer of the Army of the Potomac, arrived at the scene, instantly grasped Little Round Top’s strategic value—its heights commanded the battlefield’s southern end—and diverted passing Union units to its defense. Had Berdan’s men not delayed Longstreet’s attack, and had not General Warren aggressively occupied Little Round Top, the battle may well have been lost.

As it was, Longstreet’s soldiers fought their way to within 100 yards of the hill’s pinnacle before they were thrown back by arriving Union infantry and artillery. And at that moment Confederate sharpshooters arrived below the hill, taking cover in a jumble of truck-sized boulders, in so eerie a setting that it was known as the Devil’s Den.

The Oldest Gettysburg Sharpshooter

Soon after the initial clashes at Gettysburg, the town's elderly constable, John Burns, presented himself to Major Thomas Chamberlain of the just arriving 150th Pennsylvania Regiment. Borrowing a rifle from a wounded soldier, the 69-year-old veteran of the War of 1812 volunteered to sharpshoot for his fellow Pennsylvanians. Eying the elderly man, Major Chamberlain thanked him for his patriotism and suggested he try another unit, such as the nearby Iron Brigade.

Had Chamberlain inquired a bit more he might not have been so hasty. For Burns had not merely carried a rifle four decades earlier but had fought with distinction at Plattsburg, Queenstown, and Lundy's Lane, at the latter helping seize a battery of enemy guns. As the local townspeople knew, the old rifleman was a crack shot.

Despite the rejection, Burns approached the Iron Brigade and found a more receptive officer in Colonel Langhorne Wister, who warned, "But you have no ammunition."

"Yes I have," the clear-eyed veteran announced, slapping his pockets.

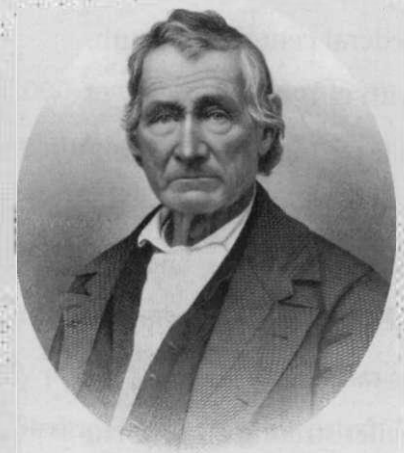
"Do you know how to shoot?" Wister asked, the sound of heavy firing growing by the minute.

"Give me a chance," swore Burns, "and I will show you whether I can shoot or not."

Sent forward to the 7th Wisconsin Volunteer Infantry Regiment, Burns demonstrated his skill, firing with precision and deliberation. His uncanny accuracy attracted the regiment's executive officer, Lieutenant Colonel John Callis, who "sent him a silver-mounted rifle that had been captured from the enemy in the Battle of Antietam." Espying a distinguished Rebel officer "riding a beautiful gray horse," the elderly Burns took careful aim and "that beautiful charger was soon seen galloping riderless over the field, and the old hero was saluted by three cheers from the soldiers who were watching him."

Much of that day Burns spent firing that heavy Confederate rifle, and, it was believed, his nearly every shot brought down an enemy soldier. Then, growing reckless and exposing himself, he was struck by two musket balls, and as he lay wounded, a third slammed into him. Regaining his feet, Burns fired yet again and was struck by a fourth bullet, fired by Rebel soldiers overrunning his position. Unconscious, he was passed for dead, and afterward the Confederates almost executed him for having fought in civilian clothes—but the great battle swirling about him was over before that could be accomplished.

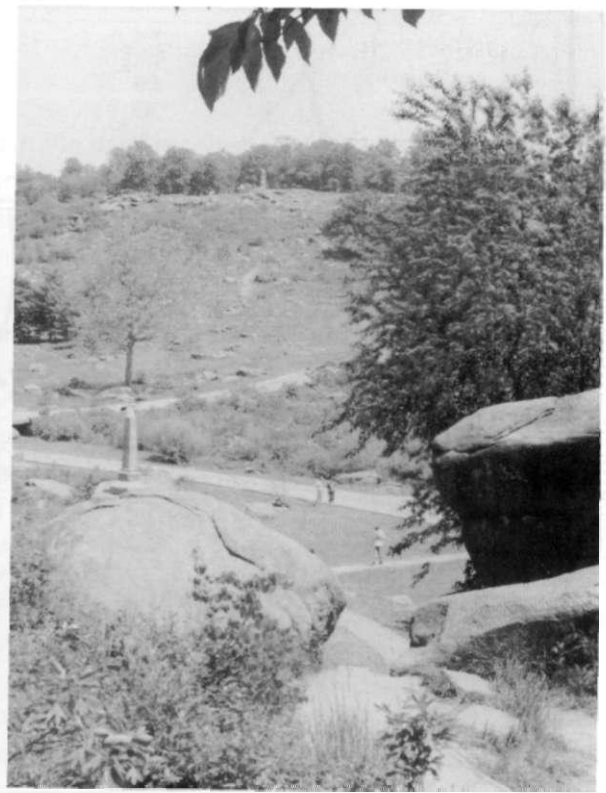
While Burns slowly healed, word of his courageous sharpshooting spread, capturing the public's imagination. Soon, newspapers called him the "Hero of Gettysburg" and no veteran of that decisive action garnered more respect. When President Abraham Lincoln arrived to deliver his famous Gettysburg Address, he sent for Burns, but the humble old man thought people were pulling his leg and refused to go. Overcoming his protests, neighbors led him to the president, who spoke with the old sharpshooter at length and then "walked with him arm in arm through the streets." Until John Burns' death in 1872, visitors to the great battlefield often called on him, delighted to meet the oldest sharpshooter to fight at Gettysburg.



John Burns, at 69 years, was the eldest sharpshooter at Gettysburg.



Dead Rebel sharpshooters in the Devil's Den, afterward called the "Slaughter Pen."



A Rebel sharpshooter's view of Little Round Top from the Devil's Den—exactly 522 yards to the crest.



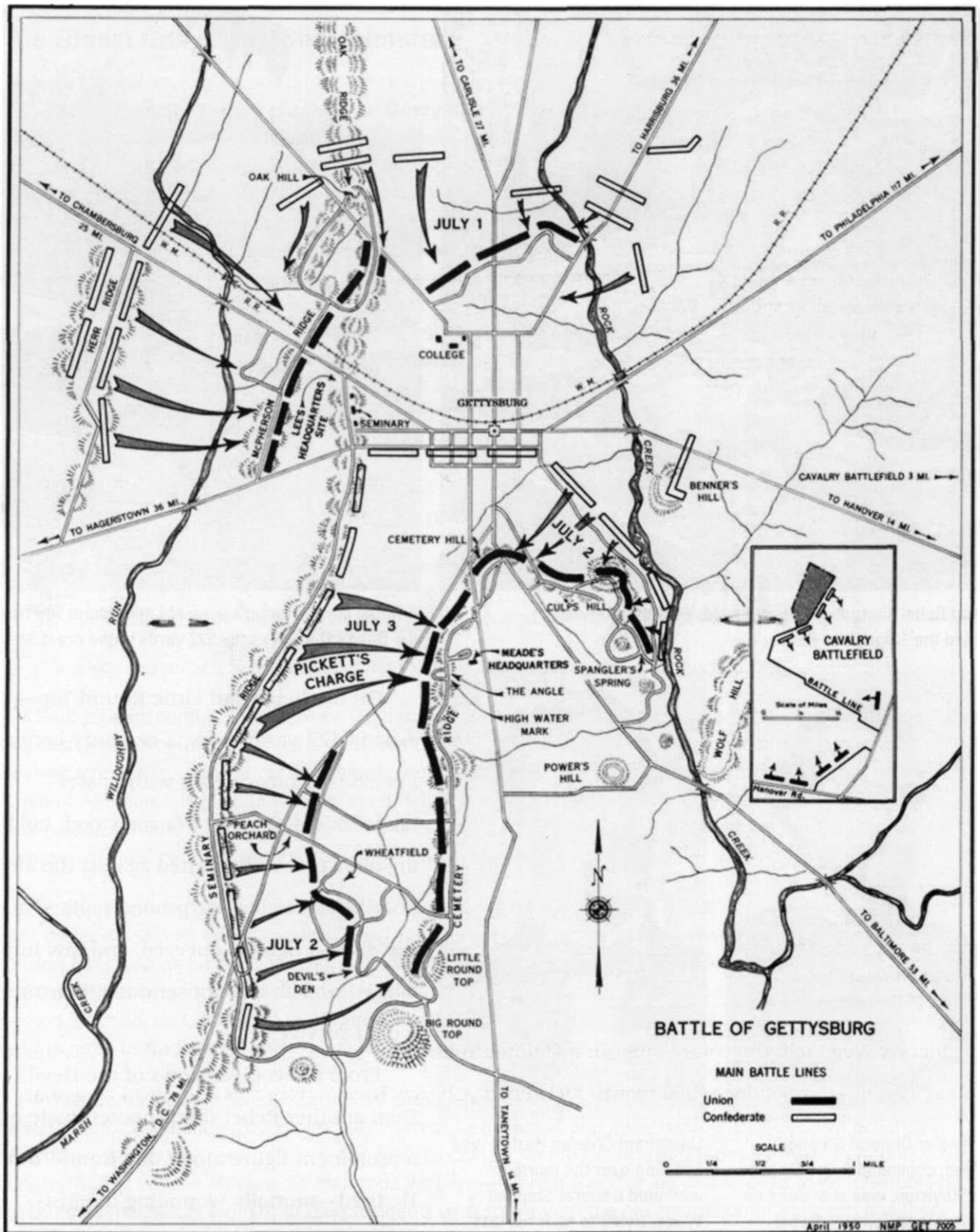
Brigadier General Stephen Weed, commander, 3rd Brigade, 2nd Division, was shot dead on Little Round Top by a Rebel sharpshooter.



Lieutenant Charles Hazlett was kneeling over the mortally wounded General Stephen Weed, trying to hear his last words, when he too was killed by a sharpshooter.

On the heights of Little Round Top—exactly 522 yards away, a certainty because I personally measured it with a laser rangefinder—General Warren stood, holding binoculars, silhouetted against the afternoon sky. A Rebel sharpshooter aimed at the distinct figure, squeezed, and saw him fall. Wounded, but not seriously, Warren would survive.

From the cool shadows of the Devil's Den, another Rebel sharpshooter made out a prominent figure atop Little Round Top. He fired—mortally wounding the just-arrived Brigadier General Stephen Weed, commander of the 2nd Division's 3rd



Critical fighting swarmed around Little Round Top and the Devil's Den (lower left). Pickett's Charge aimed for the Union center. General Reynolds was shot to the northwest.

Who Shot General Reynolds?

That Union Major General John F. Reynolds died in the opening clash of the Battle of Gettysburg is beyond question. That he was the victim of a sharpshooter's bullet is almost universally accepted. That Reynolds was shot by Ben Thorpe or John Hendrix or Frank Wood or . . . ? Well, a number of Confederates claimed the shot, though none offered verification or an eyewitness to support his claim.

Revisionist historians and Civil War buffs attempting to demonstrate their superior knowledge have pecked away at the sharpshooter claim for many years, despite almost all reports at the time attributing the shot to a Rebel sharpshooter. While nearly all these critics lack any familiarity with firearms, and especially with long-range shooting, they're expert enough to insist that this piece of woods or that barn was too distant, the angle of the shot was too sharp, or there were too many trees and so on, and then offer their own pet theories. After dismissing the known claimants—yet offering no evidence for his conclusion—one Gettysburg buff decided Reynolds was not even the victim of a sharpshooter since "it is much more fitting that a common infantryman may have brought the general's life to a close." What on earth does "more fitting" mean?



This period sketch depicts General Reynolds' death at Gettysburg, the victim, most authorities agree, of a Confederate sharpshooter.

Temporarily halting his mounted staff officers while waving arriving units to their locations, and with plenty of potential sharpshooter positions less than 500 yards away, Reynolds—resplendent in the uniform of a general officer—quite naturally drew the attention of a hostile marksman. His killing wound, a single shot to the neck, fits the modus operandi of a sharpshooter attempting a head shot or employing a bit too much elevation for a center-mass shot. Beware the revisionists who want to tinker with history.

Brigade. As Weed fell, the commander of a Union artillery battery ran to his side, and, while attempting to hear his commander's final words, Lieutenant Charles Hazlett, too, was shot dead by a sharpshooter and fell atop General Weed. The range now well known, sharpshooter fire began impacting all across the hilltop while reinforcing Union soldiers frantically stacked rocks and logs for cover. Since they were looking downhill into the late afternoon's descending sun, the glare made aiming difficult for Union riflemen and sharpshooters.

A hundred yards south of where Weed and Hazlett had fallen, Brigadier General Strong Vincent, commanding the 3rd Brigade of the 1st Division, waved his men right and left on Little Round Top's slope—and collapsed from a fatal sharpshooter's bullet. Within sight of where General Vincent fell, Colonel Patrick O'Rourke, commanding the 140th New York Infantry, also was positioning his newly arrived men on Little Round Top when still another sharpshooter's bullet struck him dead. Five Union regiments, supported by at least three companies of Berdan's Sharpshooters, frantically fought off every attempt to seize Little Round Top and did their best to counter the Confederate sharpshooter fire.

From the immense granite boulders of the Devil's Den, Confederate sharpshooters continued to take their toll. Then a salvo of Union artillery slammed into the rocks, killing many marksmen with fragments and



Marking the spot where General Strong Vincent was mortally wounded, this tablet stands on Little Round Top's southeast slope.



Colonel Patrick O'Rourke, commander, 140th New York Infantry, was killed on Little Round Top by a Confederate sharpshooter.

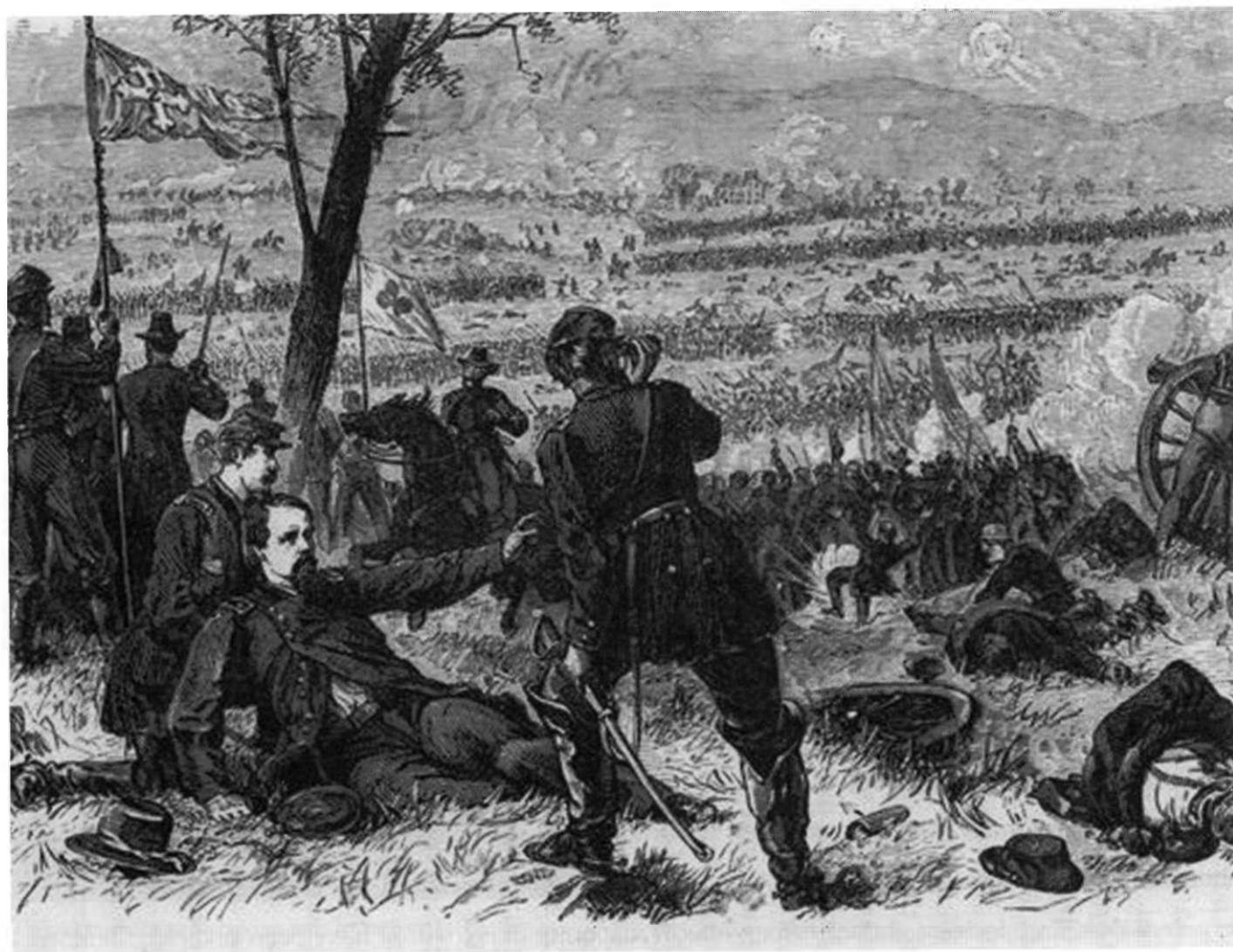
flying rocks and sheer concussion. It was not until 20 Berdan Sharpshooters finally rushed the Devil's Den and compelled the Rebels to surrender that at last, Little Round Top—and with it, the Union's southern flank—was secure. Expecting no quarter, the prisoners "begged lustily for their lives . . . until they learned that their captors were Berdan Sharpshooters," and they would not be killed.

The next morning, 3 July, found a fairly quiet battlefield. It was not until 1 P.M. that Confederate artillery let loose an hour-long barrage concentrated on the Union center, answered by an even heavier Union barrage. Then, at 2 P.M., some 12,000 Confederate infantrymen emerged from the woods of Seminary Ridge and arrayed for the largest frontal assault in American history. Upon signal, they advanced quick-time toward the Union lines, a bloody mile distant across open, relatively flat ground.

In Gettysburg's houses on Baltimore Street, Rebel sharp-

shooter commander Major Eugene Blackford had his instructions: "My orders were to fire incessantly without regard to ammunition." Before him, Blackford saw "100,000 [Union] men, all massed densely so that every shot from our side told." He directed his men to engage an artillery battery just 400 yards away, and the Union crews were immediately killed or fled for their lives. "The men soon complained of having their arms and shoulders very much bruised by the continual kicking of the muskets," Blackford reported, "but still there could be no rest for them."

As Union counterfire struck the houses, the sharpshooters scurried from house to house through holes cut into intervening walls. They piled beds, furniture, and mattresses to give them as much protection as possible. Soon the rooms stank of black powder, and the heat grew so oppressive that they stripped to the waist. "I fired 84 rounds with careful aim into their midst, one gun cooling while the other was in use," said one sharpshooter. "My shoulder pad became so sore that I was obliged to rest."



Major General John Gibbon, commanding the Union's II Corps, lies wounded during Pickett's Charge, shot by a sharpshooter.

Among the assaulting Confederate troops were sharpshooters who took a toll, as well. Union General John Gibbon, commanding II Corps, was knocked down and seriously wounded, he thought, by a sharpshooter. Many other Union officers fell, and in all the confusion no one could say who had fired such deadly projectiles.

That morning of 3 July, several Union sharpshooter units had reinforced the center of the line. The 2nd U.S. Sharpshooter Regiment placed its marksmen among the varied regiments holding Cemetery Ridge, while the 1st Company of Andrews Sharpshooters were in Ziegler's Grove, firing their telescope rifles at the Rebel sharpshooters in Gettysburg. Captain Emerson Bicknell of the Andrews Sharpshooters wrote, "I gathered a few men about me on [Cemetery] ridge and when the pressure upon our lines was at their height, picked off two or three mounted officers, who were pressing their men against our line just to the left of my position." As quickly as they could reload, alongside thousands of infantrymen, Union sharpshooters poured on well-aimed rifle fire.

The mass Confederate assault, known forever as Pickett's Charge, went on despite the continuous pummeling of cannon and rifle fire, swept up to the Union lines, then faltered, flickered, and finally ignominiously died. It was over. In three days, Lee's army had lost 27,000 men killed or wounded, slightly more than the Union's estimated 23,000 casualties. But the South's logistical cupboard was nearly bare, and her manpower pool almost spent, while the North's losses were serious but replaceable.

Among the dozens of key decisions and decisive actions that tipped the scales at Gettysburg, it is difficult to claim that any event or unit singularly turned the tide. Yet, the delay of Longstreet's forces on 2 July—accomplished by Berdan's Sharpshooters—and the fight for Little Round Top—which involved both Union and Confederate marksmen—are among those key events, and had they gone the other way, the outcome might well have been reversed. The death of General Reynolds by a Rebel sharpshooter markedly influenced the first day's fighting and led to Union forces falling back on Gettysburg's more favorable terrain—for worse or, as it turned out, for better.

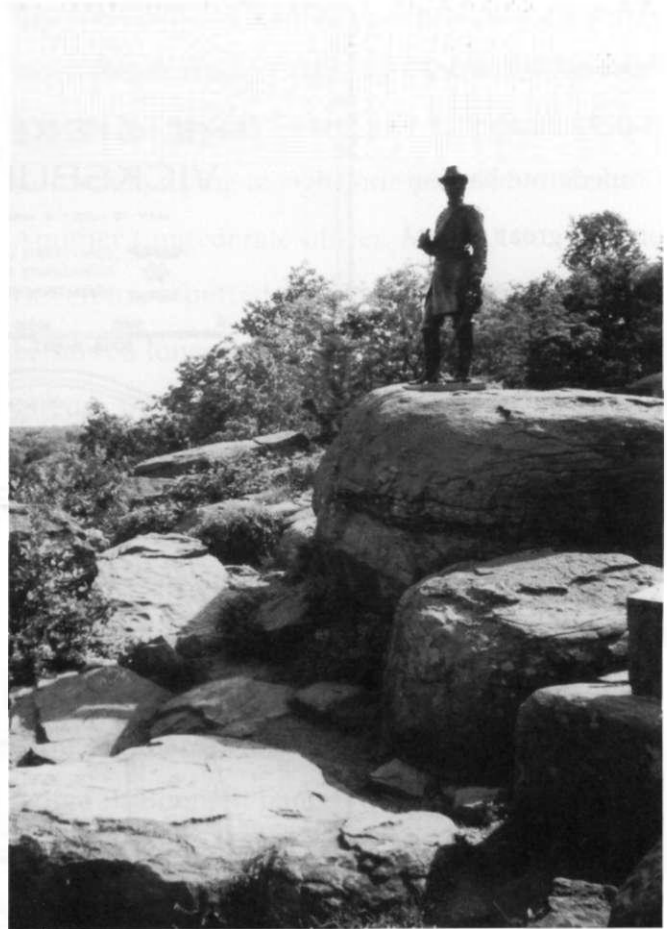
Ironically, the most impressive Confederate sharpshooting performance at Gettysburg—the catastrophic decapitation of senior Union officers on Little Round Top—had little effect on Federal forces holding that critical terrain. Why? Despite the sudden losses, the Union troops already had been positioned, and they understood their mission: "Shoot anyone who comes your way." Had Rebel sharpshooters eliminated the same leaders a half-hour earlier—before they'd assessed the situation, made key decisions, and positioned their forces—the result quite likely would have been reversed, demonstrating that it was not just *which* leader was shot, but *when*.



The Gettysburg monument to the 1st Company, Andrews Sharpshooters, depicts a soldier firing a "telescope rifle."



This monument to Michigan men belonging to Berdan's Sharpshooters stands on the west slope of Little Round Top, where they fought.



Silhouetted against the sky, this life-size statue of Major General Gouverneur Warren stands atop Little Round Top, where he was shot by a Rebel sharpshooter.

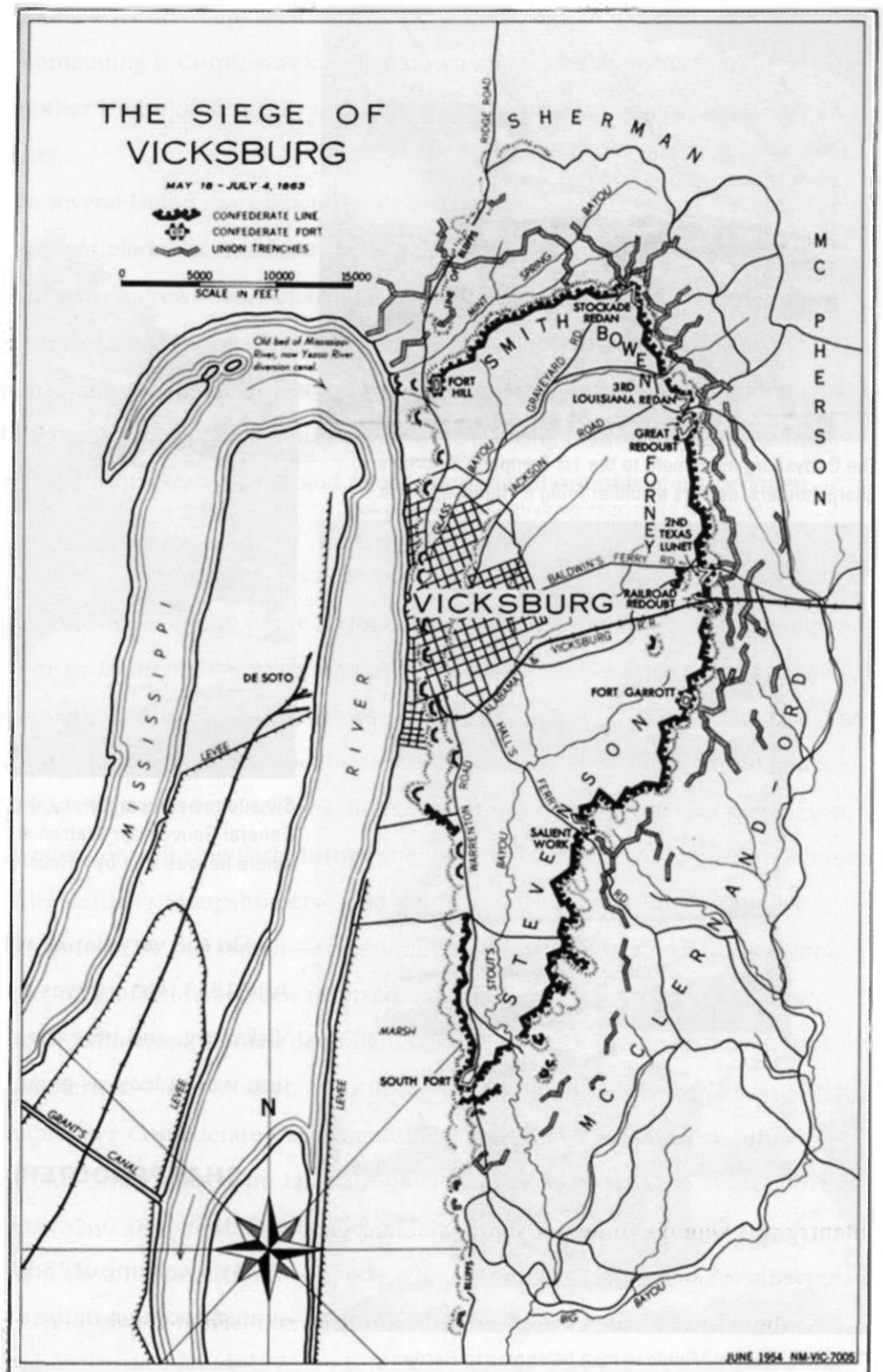
On the very day of victory at Gettysburg, 4 July 1863, victory was achieved as well at Vicksburg, and here the sharpshooter contribution was at least as great.

SHARPSHOOTERS AT VICKSBURG

By the spring of 1863, there was no more strategic position in the western theater than Vicksburg, Mississippi. Located on a bluff overlooking the Mississippi River, halfway between

Memphis and New Orleans, Vicksburg was the final Confederate bastion on that great waterway. Capture of Vicksburg, General Ulysses S. Grant knew, and the Confederacy would be cut in half, its eastern armies separated from critical supplies in Texas, Arkansas, and Louisiana.

This attack was heavily supported by sharpshooters, their



Nine miles of trenches and strong points ringed the doomed river town of Vicksburg.



Miles of elaborate breastworks surrounded Vicksburg and (here) Petersburg, but even peeking over the top was risking one's life.

fire especially focused on artillery crews. A captured Rebel artillery officer told the *New York Herald* that he had "seven men killed in succession while trying to sight one piece of artillery." Another Confederate officer, Major J.G. Devereux, reported, "No [artillery] piece could be served longer than ten minutes," due to intense Union sharpshooter fire.

Confederate sharpshooters were no less engaged. Advancing with his troops, Union Colonel W.M. Stone paused to speak with Lieutenant Colonel C.W. Dunlap, "when I was shot in the arm by a sharpshooter." A second

later, a sharpshooter's bullet killed Colonel Dunlap, acting commander of the 21st Iowa Regiment. Not far away, a Union brigade commander, Colonel George B. Boomer, paused during the assault, and, although he minimized his size by lying prone, a well-placed Rebel sharpshooter's bullet struck and killed him.

So intense was the fire that two Union regimental colors, abandoned a scant 10 feet from the Rebel works, fluttered in the wind unmolested all day; any attempt to seize them brought instant death.

The 22 May assault having failed, Grant's forces settled into a protracted siege. While Confederate Major General John Pemberton's 30,000 men defended 9 miles of trenches and hilltop strongpoints, Grant's 50,000 men slowly advanced a labyrinth of trenches forward. Like a python ever tightening its grip, Union engineers' trenches squeezed closer and closer to Confederate positions, covered all along the way by precision sharpshooter fire.

Requiring every bit as much exactness as long-range shooting, this close-range sharpshooting focused at tiny, often fleeting targets as little as 60 yards away. As General Grant wrote, "Their infantry was kept down by our sharpshooters, who were always on alert and ready to fire whenever it showed itself above the Rebel works."

"As the trenches progressed," wrote Union Brigadier General Mortimer Leggett, "I advanced my sharpshooters, thus protecting as much as possible those at work on the trenches." And with each trench extension, Leggett explained, "as soon as possible loop-holed timber was placed upon the

"I am the only officer left in the Company."

No account of Vicksburg so well captures the effect of relentless sharpshooter fire as the diary of Captain W.L. Faulk, commander of Company B, 38th Mississippi Infantry. Facing incessant casualties and few means to counter the enemy's sharpshooters, Faulk documented his unit's declining strength and will during the 43-day siege in these diary extracts.

- May 20** *10 o'clock. Adjutant Ward wounded in both legs by a sharpshooter . . . have been under heavy fire from the sharpshooters. . . . Five or six men in the regiment wounded and one killed from Co. I. . . . One man from my company slightly wounded—D.Y. Legust. I forgot to mention yesterday the wounding of Lieut. Lainhart, said to be mortal.*
- May 23** *All very quiet along our lines last night and up to present time . . . except some sharpshooting. We are called upon to regret the loss of Capt. Gravis. He was killed early this morning by a sharpshooter.*
- May 24** *Sharpshooting and artillery fire all day.*
- May 25** *Nothing heard but the firing of sharpshooters. . . . One man killed in Co. D by a sharpshooter this morning. . . . We have been permitted to come from the ditches and walk about and relieved from the continuous firing of the sharpshooters and cannon . . .*
- May 26** *All quiet except occasional firing by cannon and continuous sharpshooting. I regret the wounding of one of my best men (Louis Segrest) who was shot just below the knee, causing a fracture of one of the bones; also one man from Co. E wounded at the spring while getting water. . . . Nine days we have been confined to the ditches, only permitted to walk around after dark.*
- May 27** *Another beautiful morning . . . and still the popping of guns from sharpshooters continues and occasional peals from the enemy's cannons I am the only officer left in the company. 6 o'clock. . . . The incessant sharpshooting continues.*
- May 28** *The enemy still continue their shelling and sharpshooting.*
- May 30.** *[T]his morning the sharpshooters are popping away as usual. . .*
- June 2** *All quiet again this morning except the usual sharpshooting and occasional cannonading.*
- June 6** *One man from Co. I shot in the finger by a sharpshooter last night.*
- June 8** *The enemy have been quiet for several days past. The sharpshooters keep up a continual firing, for what reason they alone know for they can see nothing to shoot at.*
- June 11** *Very heavy sharpshooting yesterday and this morning.*

- June 13** *The same old routine of shelling and sharpshooting still continues.*
- June 14** *This is a beautiful morning and were it not for the incessant firing of the sharpshooters all would be perfectly quiet as it should be on this [Sabbath] day.*
- June 17** *One man killed by a sharpshooter in Co. I.*
- June 18** *One man from Co. K killed by sharpshooters.*
- June 21** *W.T. Adair of my company was wounded by a sharpshooter, I am afraid badly.*
- June 24** *Another man killed in our regiment today from Company I.*
- June 25** *God in his wisdom has seen fit to take from us one of our best soldiers (Aleck Cameron). He was good in all that constitutes a soldier—brave, noble, and true—one who never shrank from danger or murmured at duty—always ready to encourage the men under the greatest hardships and privations. He was shot by a sharpshooter in the left eye whilst looking over the parapet last night about 9 o'clock. His death has cast a gloom over our little company, and it will be long before we can realize that Aleck is no more . . . another man in Co. C wounded by sharpshooters.*
- June 26** *Very heavy sharpshooting in front of our position last night. . . . Another man killed in Co. I today by sharpshooters. We are losing men very rapidly.*

Multiply the experience of Captain Faulk's company by 100 or more, and you can begin to grasp the deadly effect of sharpshooters on all the Confederate infantry companies defending the 9-mile Vicksburg perimeter.

works for the sharpshooters." He singled out Lieutenant J.W. Miller of the 54th Ohio for "courage and physical endurance" in leading his brigade sharpshooters.

Sharpshooter C.L. Ruggles of the 20th Ohio took on several Confederate artillery crews and achieved sufficient fame that General Grant personally presented him with a new rifle. Wrote another 20th Ohio soldier, "It is shoot, shoot, dodge, dodge from morning to night, without cessation, except when we sleep." To allow sharpshooters to fire deeper into Confederate positions, Union engineers erected a tall shooting platform, known as "Coonskin Tower." Other sharpshooters, according to an Iowa veteran, would dig "rat holes on the outer side of the parapet and fire incessantly."

As the siege continued, a few freelance sharpshooters tried their hand at it. Notable among them was Lieutenant Colonel Harrison Strong, an officer on General James B. McPherson's staff and an expert marksman. He put an artillery crew out of action and then shot dead a Rebel sharpshooter he detected low-crawling between the trenches.

The Confederate defenders, meanwhile, were doing their best to stave off the approaching Yankee trenches. "To impede the progress of the enemy's work as much as possible," reported a Confederate brigade commander, "I have directed the sharpshooting of my men there to be increased, having one sharpshooter every 8 or 9 yards in the rifle pits, to fire whenever they see anything to shoot at."

Rebel ranks included some fine marksmen, among them a one-eyed man who fired a Belgian-made rifle. Belonging to the 30th Alabama and known as that state's best marksman, he was named Elliott, though he had the nickname of "Old One-Eye." According to the *Charleston Mercury*, Elliott was reputed to have made several kills at 1,000 yards, and, it was claimed, he once shot two Union officers with a single bullet.

For their part, Union sharpshooters, too, were taking a bloody toll of Confederate forces.

"Our entire line became subject to murderous fire," reported CSA Brigadier General Louis Hebert, "and nearly every cannon on my line was in time either dismounted or otherwise injured." General Pemberton informed his superior, Lieutenant General Joseph Johnston, that Union sharpshooters were shooting his officers and men "whenever they showed themselves." Another Rebel officer observed, "The sharpshooters are extremely vigilant and are within 60 or 70 yards, excellently covered." In particular, Confederate soldiers dreaded a spot they called "the Dead Hole," from which hidden Yankee sharpshooters had shot 17 men.

Rebel losses reached high into their command level. The 6th Missouri Regimental commander, Colonel Eugene Erwin—grandson of the great orator Henry Clay—"sprang on the parapet to lead a charge against the enemy," but he was "shot and instantly killed" by a single, well-placed shot.

The highest-ranking Vicksburg targets felled by Union sharpshooters were Brigadier Generals Isham Garrott on 17 June and Martin Edward Green 10 days later. Annoyed by the continual sharp-



Union Lieutenant Colonel Harrison Strong, an expert marksman, tries his hand at sharpshooting.

"Shooting for the Epaulets"

Sharpshooters on both sides opportunistically "shot for the epaulets"—that is, they attempted to shoot senior officers, distinguished traditionally by gold shoulder boards with hanging tassels. Each time a sharpshooter killed or seriously wounded a senior leader, his loss potentially disrupted command and coordination, particularly if that officer was directing an attack. When popular leaders fell, morale suffered, too. Consider, then, the effect of losing all these leaders at critical times and places—keeping in mind that this is an incomplete representation gleaned from various regimental and divisional histories.



Killed by a sharpshooter at Chickamauga, Union Colonel Hans Christian Heg. Norwegian by birth, Heg previously had commanded the 15th Wisconsin Volunteer Infantry.

21 June 1861	Union Navy Commander James H. Ward , commander, Potomac Flotilla, shot dead by a Confederate sharpshooter while aboard the USS <i>Thomas Freeborn</i> , the first naval officer to die in the Civil War.
13 July 1861	CSA Brigadier General Robert S. Garnett , a brigade commander at Corrick's Ford, Virginia, shot dead by a Union sharpshooter, the first general officer to die in the Civil War.
10 August 1861	Union Brigadier General Nathaniel Lyon , commander of Northern forces at the Battle of Wilson's Creek, Missouri, killed by a Confederate sharpshooter.
10 September 1861	CSA Lieutenant Colonel John Washington , staff officer to General Robert E. Lee, killed by Union sharpshooter at Cheat Mountain, West Virginia.
21 October 1861	Union Colonel James Baker , commanding a brigade-size diversionary force, killed by a Confederate sharpshooter at Balls Bluff, Virginia.
15 February 1862	CSA Lieutenant Colonel Alfred Robb , regimental executive officer, shot dead by a Union sharpshooter at Fort Donelson, Tennessee.
7 March 1862	CSA Brigadier General Ben McCulloch , commander of a Confederate brigade, shot dead by a Union sharpshooter at Elkhorn Tavern, Arkansas.
22 March 1862	Union Colonel William Murray , commander, 84th Pennsylvania Volunteer Infantry, killed by a Confederate sharpshooter at Kernstown, Virginia.
14 September 1862	Union Major General Jesse Reno , commander, IX Corps, shot dead by Confederate sharpshooter at Fox's Gap, Maryland.
17 September 1862	Union Major General Joseph K.F. Mansfield , commander, XII Corps, killed by a Confederate sharpshooter at Antietam Creek, Maryland.
17 September 1862	CSA Brigadier General Lawrence O'Bryan Branch , a brigade commander in Hill's Division, killed by a Union sharpshooter at Antietam Creek, Maryland.
31 December 1862	Union Colonel Leander Stem , commander of the 101st Ohio Infantry Regiment, shot dead by a Confederate sharpshooter, Stones River, Tennessee.
3 May 1863	Union Colonel Amor McKnight , commander, 105th Pennsylvania Volunteer Infantry, killed by a Confederate sharpshooter at Chancellorsville, Virginia.

3 May 1863

Union **Colonel Henry J. Stainrook**, commander, 2nd Brigade, 2nd Division, "instantly killed" by Confederate sharpshooter at Chancellorsville, Virginia.

3 May 1863

CSA **Colonel Thomas J. Purdie**, commander, 18th North Carolina Regiment, killed by a Union sharpshooter at Chancellorsville, Virginia. (Possibly "suicide by sharpshooter," for one day earlier Purdie had ordered his troops to open fire, accidentally killing the irreplaceable General Thomas "Stonewall" Jackson.)

4 May 1863

Union **Major General Amiel W. Whipple**, division commander, shot dead by a Confederate sharpshooter, Chancellorsville, Virginia.

22 May 1863

Union **Lieutenant Colonel C.W. Dunlap**, acting commander, 21st Iowa Regiment, killed by Confederate sharpshooter, Vicksburg, Mississippi.

22 May 1863

Union **Colonel George Boomer**, commander, 22nd Missouri Volunteers, killed by a Confederate sharpshooter at Vicksburg, Mississippi.

23 May 1863

Union **Colonel John Richter Jones**, commander, 58th Pennsylvania Volunteer Infantry, killed by a Confederate sharpshooter near Batchelders Creek, North Carolina.

27 May 1863

Union **Colonel David Cowles**, commander, 128th Regiment, New York Volunteers, killed by a Confederate sharpshooter at Port Hudson, Mississippi.

17 June 1863

CSA **Brigadier General Isham Garrott**, a brigade commander, shot dead by a Union sharpshooter at Vicksburg, Mississippi.

24 June 1863

CSA **Colonel Eugene Erwin**, commander, 6th Missouri Infantry Regiment, shot dead by a Union sharpshooter at Vicksburg, Mississippi.

27 June 1863

CSA **Brigadier General Martin Edward Green**, commander, 2nd Brigade, Bowen's division, killed by a Union sharpshooter, Vicksburg, Mississippi.

30 June 1863

CSA **Colonel James W. Starnes**, commander, 4th Tennessee Cavalry Regiment, shot dead by a Union sharpshooter near Tullahoma, Tennessee.

1 July 1863

Union **General John F. Reynolds**, commander, forward element, Army of the Potomac (I, II, IX Corps), killed by Confederate sharpshooter, Gettysburg.

1 July 1863

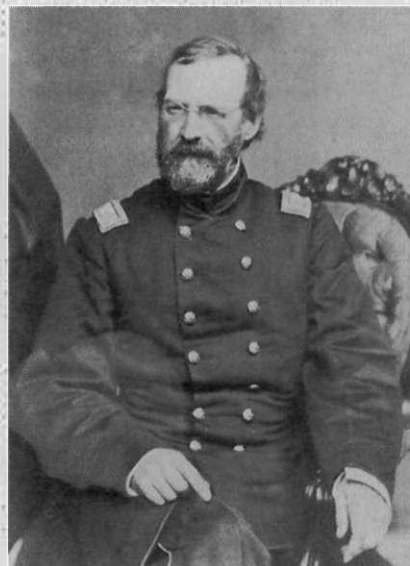
Union **Lieutenant Colonel Douglas Fowler**, commander, 17th Connecticut Regiment, killed by suspected Confederate sharpshooter, Gettysburg.

2 July 1863

Union **Colonel Edward Cross**, commander of a Union brigade, killed by a Confederate sharpshooter, Gettysburg.

2 July 1863

CSA **Lieutenant Colonel William Shepherd**, commander, 2nd Georgia Infantry Regiment, mortally wounded by a suspected Union sharpshooter, Gettysburg.

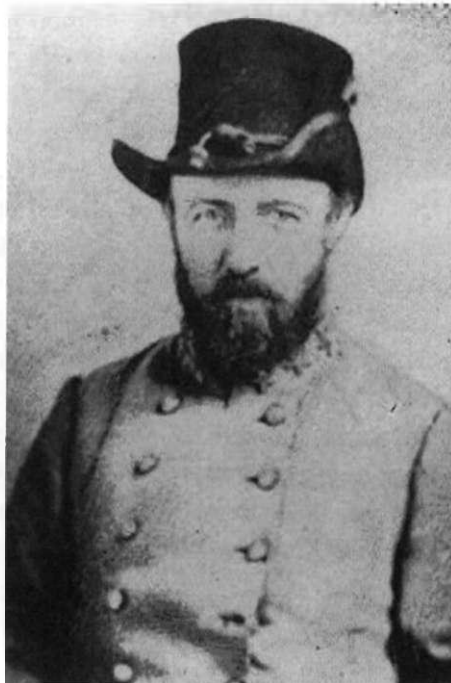


A retired judge, Colonel John Richter Jones raised and led the 58th Pennsylvania Volunteer Infantry Regiment until he was killed by a Confederate sharpshooter. (Courtesy of James Di Risio.)

2 July 1863	CSA Brigadier General William Barksdale , brigade commander, believed killed by a Union sharpshooter, Gettysburg.
2 July 1863	Union Colonel Charles F. Taylor , commander, 1st Pennsylvania Rifle Regiment, killed by a Confederate sharpshooter, Gettysburg.
3 July 1863	Union Brigadier General Stephen Weed , commander, 3rd Brigade, 2nd Division, killed by a Confederate sharpshooter, Gettysburg.
3 July 1863	Union Brigadier General Strong Vincent , commander, 3rd Brigade, 1st Division, mortally wounded by a Confederate sharpshooter, Gettysburg.
3 July 1863	Union Colonel Patrick O'Rourke , commander, 140th New York Infantry, shot dead by a Confederate sharpshooter, Gettysburg.
18 July 1863	Union Colonel John Toland , commander, 34th Ohio Volunteer Infantry Regiment, killed by Confederate sharpshooter, Wytheville, Virginia.
19 September 1863	Union Colonel Hans Christian Heg , commander, 3rd Brigade, 1st Division, mortally wounded by a Confederate sharpshooter at Chickamauga, Georgia.
20 September 1863	Union Colonel Edward King , commander, 2nd Brigade, Fourth Division, killed by a Confederate sharpshooter at Chickamauga, Georgia.
20 September 1863	Union Brigadier General William Lytle , commander, 1st Brigade, 3rd Division, killed by a Confederate sharpshooter at Chickamauga, Georgia.
19 November 1863	Union Major General William P. Sanders , division commander, shot dead by Confederate sharpshooter, Knoxville, Tennessee.
24 November 1863	Union Colonel Gilbert Elliott , commander, 102nd New York Volunteers, shot dead by a Confederate sharpshooter at Lookout Mountain, Tennessee.
8 April 1864	Union Lieutenant Colonel Lysander Webb , commander, 77th Illinois Volunteer Infantry Regiment, shot dead by a Confederate sharpshooter at Mansfield, Louisiana.
6 May 1864	CSA Lieutenant Colonel Francis Boone , executive officer, 26th Mississippi Regiment, killed by Union sharpshooter at The Wilderness.
9 May 1864	Union Major General John Sedgwick , commander, VI Corps, killed instantly by a Confederate sharpshooter, Spotsylvania, Virginia, after uttering the ironic last words, "Why, they couldn't hit an elephant at this dist . . . "
10 May 1864	Union Brigadier General Thomas Stevenson , division commander, killed by a Confederate sharpshooter, Spotsylvania.
25 May 1864	CSA Colonel Merry Harris , commander, 12th Mississippi Infantry Regiment, mortally wounded by Union sharpshooter, Cold Harbor, Virginia.
25 May 1864	CSA Colonel Amos Riley , commander, 4th Missouri Regiment, shot and killed by Union sharpshooter at New Hope Church, Georgia.
27 May 1864	Union Major James Hampson , executive officer, 120th Ohio Infantry Regiment, killed by a Confederate sharpshooter, near Chickamauga, Georgia.
28 May 1864	Union Colonel L.O. Morris , commander, 7th New York Heavy Artillery Regiment, killed by a Confederate sharpshooter at Cold Harbor, Virginia.
31 May 1864	CSA Colonel J.T. Brown , Assistant Commander of Artillery, Army of Northern Virginia, killed by a Union sharpshooter, Wilderness, Virginia.
2 June 1864	CSA Brigadier General George P. Doles , brigade commander, killed by a Union sharpshooter, near Bethesda Church, Virginia.
3 June 1864	Union Major Joseph Gilmour , commander, Pennsylvania 48th Regiment, killed by Confederate sharpshooter near Cold Harbor, Virginia. →

9 June 1864	Union Colonel Thomas F. Burpee , commander, 21st Volunteer Infantry Regiment, mortally wounded by a Confederate sharpshooter at Cold Harbor, Virginia.
23 June 1864	Union Colonel Frederick Bartleson , commander, 100th Illinois Infantry Regiment, killed by a Confederate sharpshooter at Kennesaw Mountain, Georgia.
23 June 1864	Union Colonel William Blaisdell , brigade commander, killed by a Confederate sharpshooter, Petersburg, Virginia.
21 July 1864	CSA Colonel Samuel Adams , commander, 33rd Alabama Regiment, "instantly killed" by a Union sharpshooter at Kennesaw Mountain, Georgia.
22 July 1864	CSA Major General William H.T. Walker , division commander, killed by a Union sharpshooter near Atlanta, Georgia.
24 July 1864	Union Brigadier General James Mulligan , commander, 3rd Division, shot dead by a Confederate sharpshooter at Kernstown, Virginia.
18 August 1864	Union Colonel Daniel Chaplin , commander, 1st Maine Heavy Artillery, mortally wounded by a Confederate sharpshooter at Deep Bottom, Virginia.
6 February 1865	CSA Brigadier General John Pegram , division commander, killed by a Union sharpshooter, Hatcher's Run, Virginia.
8 April 1865	Union Major Shesh B. Howe , executive officer, 1st West Virginia Cavalry, killed by a Confederate sharpshooter the night before Lee's surrender, at Appomattox, Virginia.
8 April 1865	Union Brigadier General Thomas Smyth , commander, 3rd Division, II Corps, mortally wounded by a Confederate sharpshooter the day before Lee surrendered, near Appomattox Courthouse, the last Union general to die in the war.
16 April 1865	CSA Brigadier General Robert C. Tyler , commander, Fort Tyler, killed by a Union sharpshooter a full week after Lee's surrender, the last general of either side to die in the Civil War, at West Point, Georgia.

Right: CSA Brigadier General Isham Garrott. On 17 June 1863 he was killed while attempting to shoot a Union sharpshooter.



Far right: Confederate Brigadier General Martin Edward Green was killed by a Union sharpshooter at Vicksburg, 27 June 1863, after saying, "A bullet has not yet been molded that will kill me."



shooter fire, Garrett died while attempting to shoot a Union sharpshooter. Green, commander of the 2nd Brigade in Brigadier General John S. Bowen's division, only moments before his fatal wound had shrugged off warnings of sharpshooters by saying, "A bullet has not yet been molded that will kill me."

After suffering 42 days of relentless sharpshooter and artillery fire—his army famished and half his men killed, wounded, or sick—Pemberton had no choice but to surrender. His men laid down their arms the same day that Lee's defeated army withdrew from Gettysburg.

THE CLOSING DAYS

Despite the Confederacy's strategic reversals at Gettysburg and Vicksburg, the war dragged on another 21 months, and, every day, every step of the way, sharpshooters played a role and took their toll. Particularly, their precision fire came to the fore during the siege of Petersburg where, repeating their deadly effect at Vicksburg, they struck down any man who lifted his head above the parapets—Union or Confederate. And during the Atlanta Campaign of 1864, Rebel sharpshooters fighting on familiar ground proved especially adept at picking off Union officers.

Despite all the lessons learned and combat achievements, the Union Army's highest levels of command still did not appreciate the value and role of sharpshooters. In late 1864, when many Berdan Sharpshooters' enlistments expired, the War Department did not replace them nor seek new recruits—perhaps out of resentment for their elite status—instead gradually drawing down the unit and transferring the remaining men to other regiments. On 25 February 1865, just 42 days before Lee's surrender, "much to the disgust of officers and men," the War Department officially disbanded the 1st and 2nd U.S. Sharpshooter Regiments. Promoted to brigadier general, Hiram Berdan was discharged.



Michigan sharpshooter Sidney Haight (right), here with his brother James, was awarded the Medal of Honor for gallantry during the Petersburg siege.

The Final Casualties

The Civil War's final losses among general officers were inflicted by the precision shots of sharpshooters. Union Brigadier General Thomas A. Smyth, a courageous leader, had enlisted in the war's opening days and risen by merit through the ranks of the 1st Delaware Regiment. By the Battle of Gettysburg, Smyth wore a star and commanded an infantry brigade. Just two days before Lee's surrender at Appomattox, a few miles away, Smyth, then commanding the 3rd Division, II Corps, rode his unit's skirmish line. Spotted by a Confederate sharpshooter, one well-placed shot struck him in the neck, paralyzing him. Two days later he died, the last Union general to perish in the war.

Equally tragic was the loss of Confederate Brigadier General Robert C. Tyler, like Smyth, a self-made man who had enlisted as a private in 1861. By the Battle of Shiloh he commanded the 15th Tennessee Regiment; then, at Missionary Ridge, while capturing a Union cannon, he lost his left leg. On Easter Sunday, 16 April 1865, a week after Lee's Army of



The Civil War's final fallen general, Confederate Brigadier General Robert C. Tyler, died in the conflict's last battle.

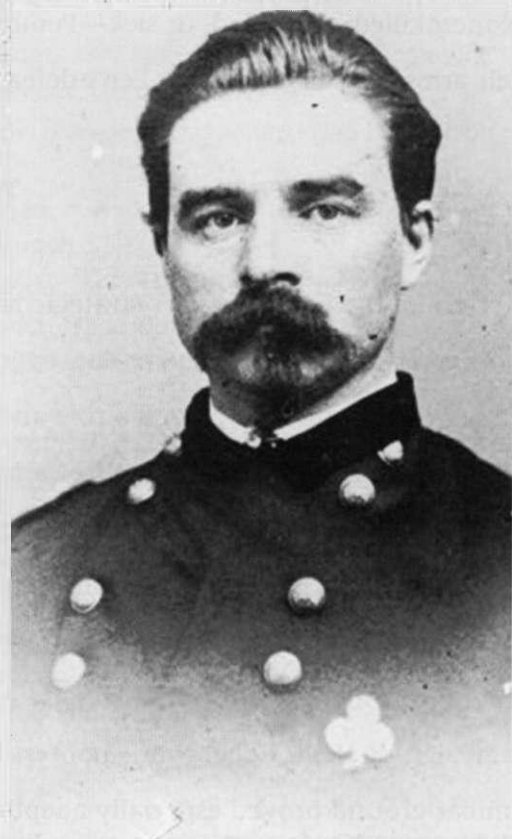
Northern Virginia had laid down its arms, General Tyler and 120 men made the Confederacy's last stand at West Point, Georgia, 30 miles north of Columbus.

Defending a tiny earthen fort, Tyler's men held off a numerically superior Union cavalry force until just after noon. Then, according to Confederate Private Isham Stanley:

"General Tyler deliberately walked in front of the wall . . . exposing his whole body to the enemy. When about midway he stopped, left-faced, which movement turned his whole front to the enemy. At that moment he fell, and never moved a muscle . . ."

From a facing house, a Union sharpshooter had fired a single shot.

With Tyler's death, his surrounded, outnumbered men lay down their arms. General Tyler was the last general on either side to die in the American Civil War.



Brigadier General Thomas Smyth was the last Union general to die in the Civil War.

On the Confederate side, sharpshooters fought on to the bitter end. As the defeated Lee fell back from Petersburg to Appomattox and inevitable surrender, sharpshooter commander Major Dunlop wrote:

"I stood upon a stump on the hill to the eastward of the Federal column where the left wing of sharpshooters were contending with the Federal right, and great tears of overwhelming admiration flowed down my cheeks in streams, as I contemplated the grand courage of that glorious little band of unfaltering heroes, fighting to the very death for a cause already lost. I could hardly stand it."

Earlier, General William Hardee had called in his defeated sharpshooters and told them, "Had every man in our army been as effective as you, had they every one done as much execution as each of you, Sherman would not now have a man left."

Georgia sharpshooter Berry Benson and his surviving comrades did not form up with the others surrendering at Appomattox. They simply turned and walked toward home, their rifles still in their hands.

PART

3

SHARPSHOOTING IN TRANSITION



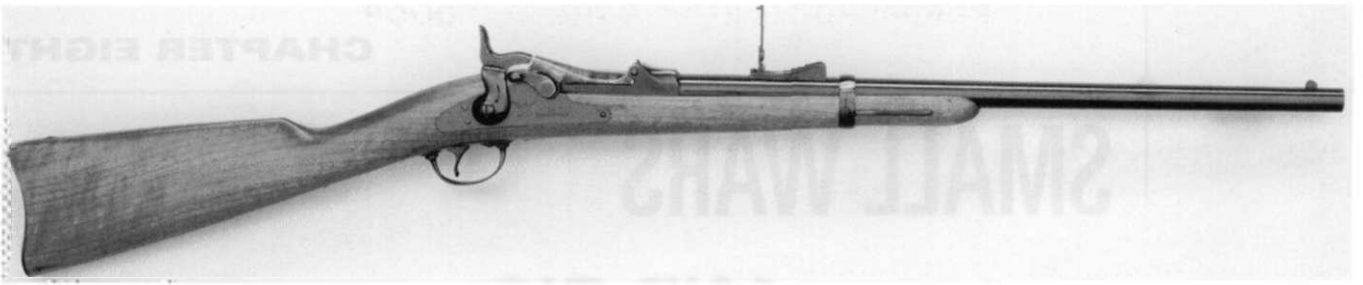
SMALL WARS AND BIG INNOVATIONS

By the American Civil War's close, Union Army ranks had swelled to more than a million men, while another million had worn the gray of the Confederacy. With amazing rapidity, their ranks dwindled to a postwar U.S. Army of just 26,000 soldiers, a number not exceeded again until the Spanish-American War in 1898. Accompanying these drastic manpower cutbacks were equally drastic budget cuts.

Despite a clear need to replace the obsolete Springfield muzzleloader, the U.S. Army simply lacked sufficient funds to develop and manufacture a new rifle. The only economical solution, realized Springfield Arsenal master

gunsmith Erskine Allin, was to convert Civil War surplus rifles into single-shot breechloaders. His resulting Allin Conversion was nicknamed the "Trapdoor" because the shooter flipped up its hinged breechblock like a door, allowing a metallic cartridge to be loaded manually. Allin's single-shot Trapdoor Springfield was both the U.S. Army's first official breechloader and its first standardized cartridge-firing rifle.

Gone forever were ramrods, patches, percussion caps, and carefully measured powder charges; a rifleman now loaded metallic cartridges from the breech, allowing him to exploit protective cover while reloading and boosting his rate of fire to perhaps eight hastily aimed rounds per minute. These were no small improvements.



The Trapdoor Springfield carbine with its rear sight raised. Its maximum effective range was about 300 yards.



The Model 1873 Springfield Trapdoor action was actually a simple breechloading modification to the Civil War Springfield.

Initially the Trapdoor fired a round produced by the Frankford Arsenal, the .50-70 Government, because, like England, many U.S. authorities believed that any projectile under .50 caliber was a “small-arm” unsuited for combat. By the time the Trapdoor was officially adopted as the Model 1873 Springfield, however, it was chambered for a more efficient cartridge, the new .45-70 Government. This downsizing was an important continuing step in projectile evolution from the sluggish .60-caliber-plus lead balls of the American Revolution toward smaller, modern, streamlined bullets.

The earliest Trapdoor Springfield black powder cartridges resembled rimfire rounds because they employed an internal Benet primer, invented by Colonel S.V. Benet, commander of Frankford Arsenal. Soon the cartridge switched to centerfire priming very much as we see today.

Manufactured as both a full-size rifle and a compact cavalry carbine, each Trapdoor version had its own .45-70 load. The 9.3-pound Model 1873 rifle fired the .45-70-405, meaning a .45-caliber projectile propelled by 70 grains of black powder using a 405-grain bullet. The .45-70 cavalry carbine load was identical, except it contained 15 grains less powder to reduce felt recoil, a concern since the carbine weighed only 7.5 pounds. In 1882, both loads were replaced by a 500-grain load that contained a more efficient powder.

SHARPSHOOTING WITH THE TRAPDOOR

The Trapdoor Springfield rifle and carbine were not tack drivers; in fact, they did not shoot as accurately as the muzzleloaders they replaced, producing groups of about 4 inches at 100 yards according to period literature. Many 19th-century riflemen did not think any breechloader was capable of truly accurate fire, appreciating them for their easy loading and rate of fire, not for their accuracy.

At least the Trapdoor's sights were an improvement over the Civil War Springfield's, with rifle and carbine sights offering quick-adjust pre-sets for firing at 100-yard increments to 400 yards in early versions and, later, all the way to 800 yards. Beyond that distance, the shooter raised a ladder-style sight and elevated the crossbar for careful aiming. In early models, the maximum adjustment was 1,100 yards, while later Trapdoor models (1879 and 1888) allowed fine-tuning to 1,200 and 1,500 yards.

For all this precision, however, long-range sharpshooting with a Trapdoor was a pretty tough proposition. The cavalry carbine, for instance, had a sight plane—the distance between its front and rear sights—of only 16 1/2 inches, which does not lend itself to exact aiming. Realistically, the carbine's maximum range for most troopers was 300 yards; with a 100-yard zero, a 300-yard shot required holding 8 1/2 feet high—in other words, holding the height of a man's body over a target's head in order to hit him center mass. Under ideal conditions—unhurried, with an accurate range estimate—the shooter could adjust his carbine's rear sight, and then he stood a good chance of hitting his foe at that distance and even somewhat farther.

The improved Trapdoor, Model 1888, incorporated an entirely new, sophisticated sight, the Buffington, which was highly adjustable and included a peep aperture. It's the first military sight I've come upon that automatically compensates for the bullet's drift at long range by using a wedge-shaped elevation bar; the farther the range, the higher you slide it up, which also shifts the peephole slightly left. Therefore, when the heavy bullet's centrifugal spin begins to tug it a bit left at great range, the sight proportionally moves point of aim to the same degree. It is quite brilliant.

At long range, however, the .45-70's heavy slug became especially troublesome because its trajectory *plunged* downward at an extreme angle. For instance, with the .45-70's sights set perfectly for hitting a target at 1,000 yards—but with the target actually a scant 5 yards closer, 995 yards—the bullet would impact 21.6 inches high, flying harmlessly over the target's head!

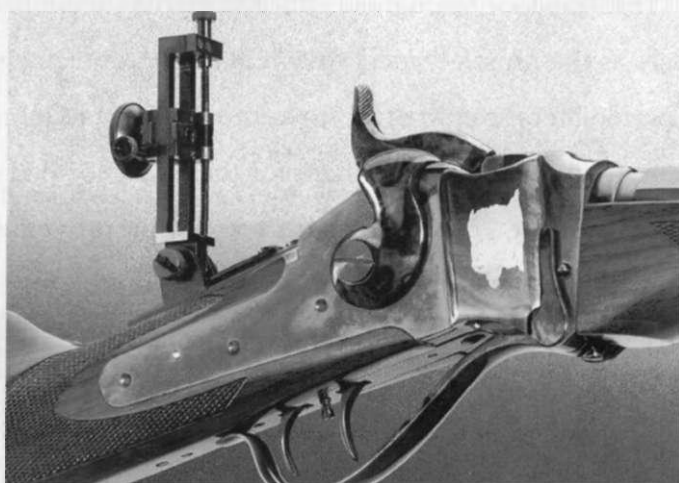
New Sights and Scopes

The post-Civil War industrial revolution saw a continuing refinement in rifle sights and scopes, which notably improved long-range shooting.

Buffalo hunters and competitive riflemen alike appreciated the highly adjustable vernier sight, which was mounted on the steel tang immediately behind a rifle's action. Operating like a caliper, the vernier's elevation and windage incorporated extremely precise adjustment screws to allow the most exacting sight changes. Despite that era's heavy black powder projectiles plodding through the air in a sharp arc, a quality vernier sight allowed enough elevation for precision shots well beyond 1,000 yards, even beyond 1,500 yards. Keep in mind that these sluggish projectiles were not necessarily inaccurate, just that their steep, plunging arc made them especially sensitive to tiny errors in range estimation. After firing an observed miss, a long-range rifleman could thus apply miniscule adjustments to put the next round on target.

Rifle scopes, too, benefited from the industrial revolution. Early scopes were almost universally constructed from brass for ease of hand fabrication, but such soft metal was susceptible to wear and corrosion. By the 1870s, many scopes used stronger steel tubes and contained lenses of higher quality. Then, in 1887, Lawson Cummins of Montpelier, Vermont, introduced the Duplex Telescope Sight, the first rifle scope to incorporate internal windage and elevation adjustments.

Meanwhile, a Syracuse, New York, scopemaker, William Malcolm, found that by placing an "intermediate lens" in his scope, it reduced optical distortion and dramatically increased the amount of light reaching a shooter's eye. For the first time, the image a rifleman saw through his scope was brighter than what he saw with his naked eye.



The vernier sight allows minute adjustments for elevation and windage.



Post-Civil War rifle scopes reflected the growing quality of optics and manufacturing.

THE U.S. ARMY'S "LONG-RANGE RIFLE"

Facing such ballistic realities, for the first time the U.S. Army developed a rifle especially for sharpshooting, the Model 1880 Long-Range Rifle. Using the Springfield Trapdoor action, it was chambered for a hotter version of the .45-70, using a case stretched from 2.1 to 2.4 inches to accommodate an extra 10 grains of black powder. This .45-80-500 rifle also employed special sights, with an adjustable target-style globe in front and a precision vernier tang sight in the rear. Not only did these sights allow minute adjustments, but the sight plane was 41 inches, a foot longer than the Trapdoor rifle's and more than twice the length of the Trapdoor carbine's sight plane. Taken together, this allowed more exact aiming with sufficient fine-tuning for a greater likelihood of long-range hits.



The Model 1880 Long-Range Rifle, the U.S. Army's first purpose-designed sharpshooter rifle. Note the target-style sights and wooden pistol grip attached to its buttstock. (Courtesy of West Point Museum.)

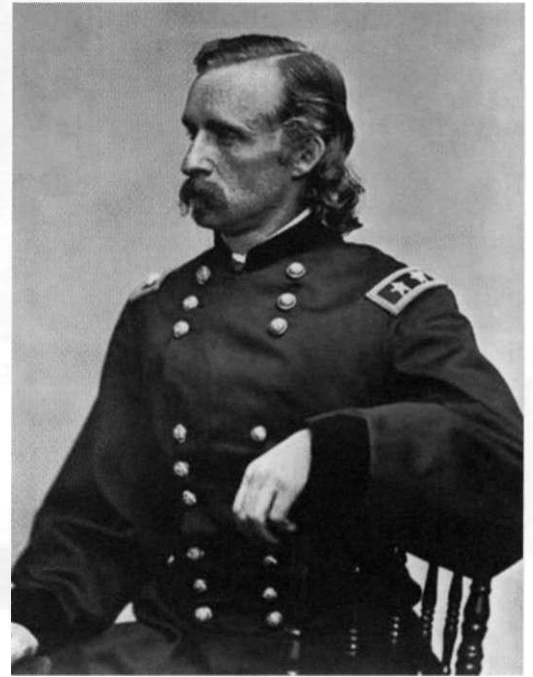
Ballistically, that extra 10 grains of powder made a significant difference on the bullet's long-range arc. In our earlier example, I noted that a tiny 5-yard range error at 1,000 yards would cause a .45-70's bullet to miss by 21.6 inches. The Long-Range Rifle's .45-80-500 bullet, under identical circumstances, impacted much closer, falling short by only 11 inches. In other words, the .45-80-500 was more forgiving of range estimation error and inherently more likely to hit long-range targets.

According to Philip Sharpe's authoritative *The Rifle in America*, Springfield Armory manufactured only 162 of these Long-Range Rifles. Robert Fisch, curator of arms at the West Point Museum, told me that a few of these rifles were issued, but I have not verified a single instance of their actual employment in combat.

MARKSMANSHIP IN THE 1870s

Post-Civil War military budgets severely constrained marksmanship training; some units had no ammunition for practice firing during all of 1866. Not until 1872 did the Army finally require infantrymen and cavalymen to fire 90 rounds annually in practice and to participate in range estimation exercises. Even then, there was no Army-wide shooting standard. Soldiers were required simply to fire for practice.

It was up to the individual commander to determine whether he had a basic marksmanship training program or a special program for sharpshooters. The 7th U.S. Cavalry Regiment's commander, Colonel George Armstrong Custer, was an advocate of both. Citing poor marksmanship by his carbine-armed troopers, in 1872 Colonel Custer set up a sharpshooter training program, with his best marksmen firing two live-fire drills per day, at 100, 200, and 300 yards. Out of 800 men, he ordered that the finest 40 shooters be designated his "picked corps of sharpshooters." As Colonel Custer wrote:



Colonel George Custer specially selected and trained his own 7th Cavalry sharpshooters.

"The men so chosen would deserve to be, as the elite of the command, not only regarded as such, but treated with corresponding consideration. For example, they were to be marched as a separate organization, independently of the column, a matter which in itself is not so trifling as may seem to those who have never participated in a long and wearisome march. Then again, no guard or picket duty was to be required of the sharpshooters, which alone was enough to encourage every trooper to excel as a sharpshooter . . . should we encounter the enemy, the sharpshooters would be most likely to be assigned a post of honor and would have superior opportunities for acquiring distinction and rendering good service. . . . I was enabled to select forty marksmen in whose ability to bring down any warrior, whether mounted or not, who might challenge us, as we had often been challenged before, I felt every confidence."

Interestingly, Custer's 40 sharpshooters represented 5 percent of his command, identical to Washington's recommended proportion of sharpshooters some 80 years earlier.

Unlike the 7th Cavalry, most 1870s Army units lacked sharpshooter training, relying instead on self-trained "chosen" or "designated riflemen" for long-range or difficult shooting. Because of insuffi-

cient training, range estimates often had to be calculated by officers, who then announced the distances and sight settings to their riflemen.

INDIANS AND SHARPSHOOTING

Many Plains Indian riflemen were not much more capable. Army Captain W.S. Nye observed that “the execrable marksmanship of the Indians was rivaled only by that of the soldiers.” Colonel Richard Dodge agreed, explaining:

“Compared with the White Hunters of the plains, the Indian is a wretched shot. He is about equal to the United States soldier, for the same reason—lack of practice. The Government and the Indian are each too poor to afford to waste more than ten cartridges a month on drill, and no man ever became an expert marksman on that allowance.”



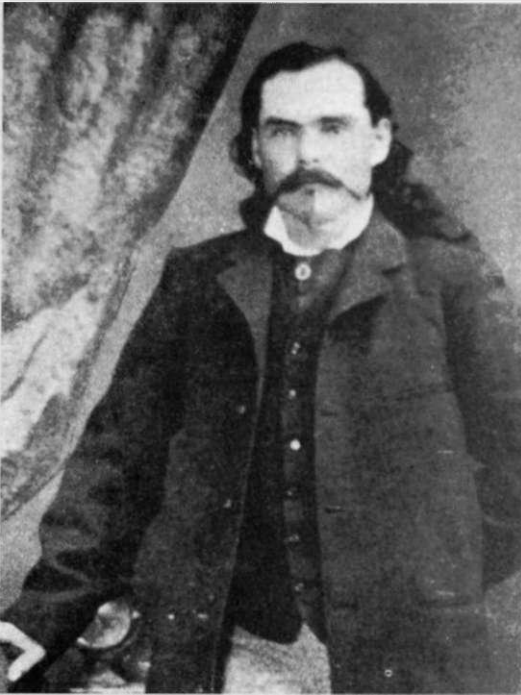
Many Indians mastered their rifles, including this proud Mescalero Apache. Note the epaulets, undoubtedly a trophy from an Army officer's uniform.

This may have been true, but just as there were exceptional soldiers who'd taught themselves to be expert shots, so were there self-taught Indians who excelled as marksmen. Previous chapters document 18th-century instances of Native American sharpshooting, which certainly continued into the 19th century. During the Seminole Wars of 1814–18, U.S. Army General Edmund Gaines' official report cited multiple instances of his sentries being shot at 400 yards, much too far to be sheer luck. However, it was a bit different culturally with the Plains tribes—the Sioux, Comanche, Crow, and Cheyenne—because their braves sought “coup,” meaning “to touch.” A Plains warrior demonstrated his courage and gained tribal recognition by daring coups within touch of his enemies, more so than by plinking at them from hundreds of yards.

Interestingly, it was also at close quarters that the

Billy Dixon's Phenomenal Shot

Billy Dixon already was a respected long-range marksman when his party of buffalo hunters and skinners rode into the tiny Texas trading post at Adobe Walls on 25 June 1874. His party brought to 28 the number of men there, plus one man's wife, distributed among four sod buildings. Adobe Walls was situated in the state's wild northern grasslands; the nearest town of any size was Dodge City, Kansas, 140 miles to the northeast.



Buffalo hunter Billy Dixon's 1874 shot is probably the most phenomenal in the era of black powder. (Courtesy of Pandhandle-Plains Historical Museum, Canyon, Texas.)

After supper and spirits in Jim Hanrahan's one-room, sod-walled saloon, Dixon and the other hunters settled down on their bedrolls to sleep under the stars. Fortuitously, at 2 A.M., the saloon's main support beam cracked, sounding like a gunshot, awakening everyone and putting them to work to prevent the roof's collapse. By the time they'd finished, it was dawn and Dixon looked east, spotting a "body of moving objects [that] suddenly spread out like a fan, and from it went up one single, solid yell—a war whoop that seemed to shake the very air of the early morning."

The Red River War had erupted.

Some 700 Kiowa, Comanche, and Cheyenne mounted warriors raced into Adobe Walls. Every man ran for his guns, but for some already it was too late. The Shadler brothers were killed and scalped before they could climb from the wagon where they'd slept; Billy Tyler ran for the saloon door and dived inside, but a bullet caught him and he died 30 minutes later. Instantly, the men barricaded doors and windows with sacks of grain and anything they could grab.

The Indians' first shots had cut down the defenders' horses, eliminating any chance of escape. Then the braves dismounted and swarmed among the buildings but barely—*just barely*—the defenders' well-aimed fire forced them back.

Several times that first day the Indians assaulted, and each time they were repulsed. The second day, having suffered significant casualties, the warriors' boldness abated and they looked for vulnerabilities rather than launched wild attacks. Gaining respect for the buffalo hunters' heavy rifles, the besieging Comanche, Kiowa, and Cheyenne grew careful about exposing themselves at less than 500 yards.

The Amazing Shot

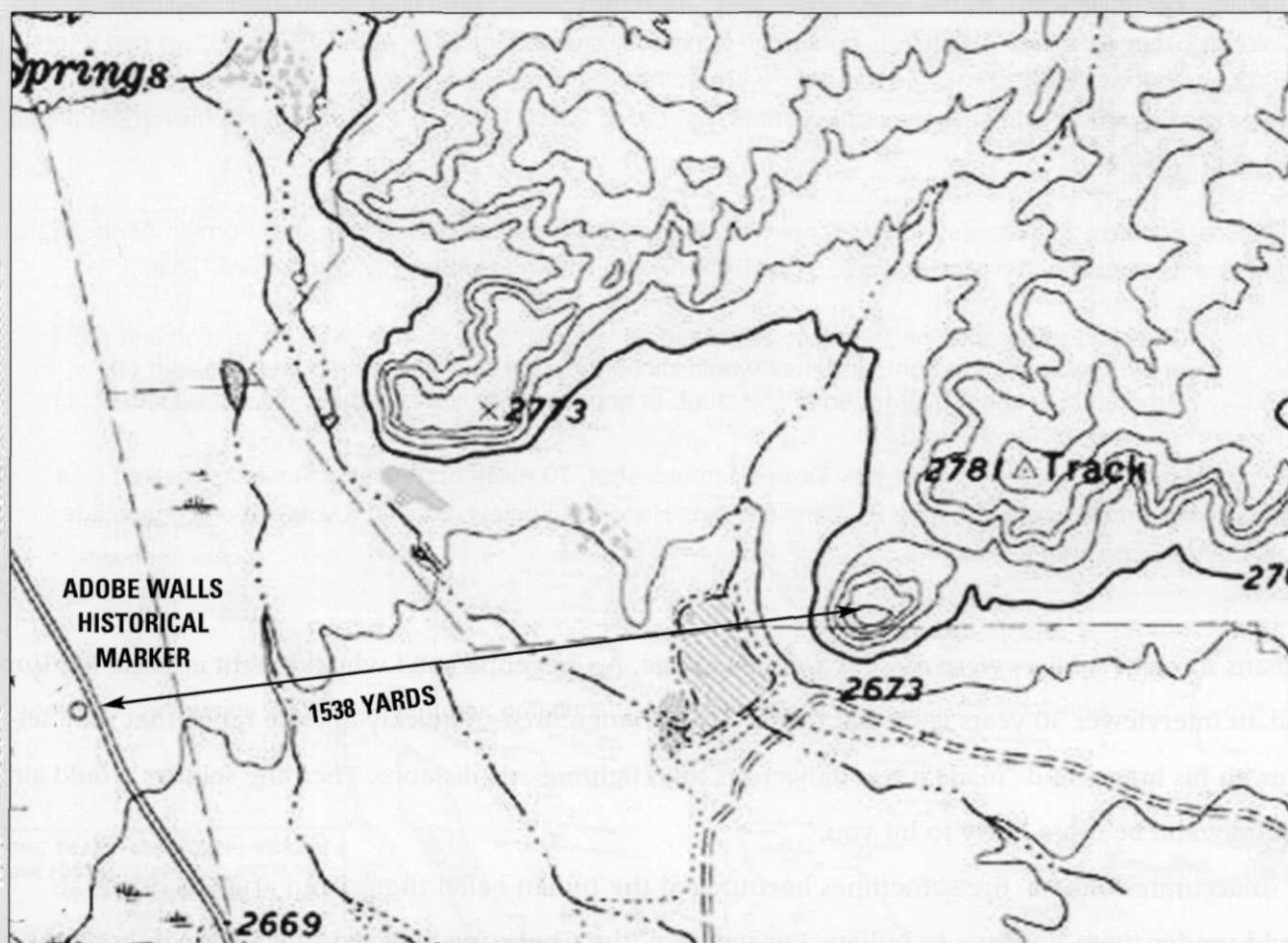
After the initial, close-quarters fighting, won largely with revolvers and lever-action Winchesters, the saloon owner, Jim Hanrahan, insisted that Dixon use his new .50-caliber Sharps rifle. "I had the reputation of being a good shot," Dixon later explained, "and it was rather of interest to all of us that I should have a

powerful gun." Dixon's rifle, which he called "my big '50,'" was a .50-90 Sharps buffalo gun, having a 3 1/4-inch case containing 90 grains of black powder, although some loads used 100 or even 110 grains of powder. Typically, a .50-90 Sharps fired a 460- to 475-grain bullet.

The gun weighed about 12 1/2 pounds, and when Dixon first fired it, he found "the recoil was so great that I lost my balance and tumbled backward from the top of the barricade." Soon, however, he grew confident in his rifle and ready for the opportunity presented to him. Here's how Dixon himself described the incident in his memoirs:

"On the third day a party of about fifteen Indians appeared on the edge of the bluff, east of Adobe Walls Creek, and some of the boys suggested that I try the big '50' on them. This distance was not far off from seven-eighths of a mile. . . . I took careful aim and pulled the trigger. We saw an Indian fall from his horse. . . . I was admittedly a good marksman, yet this was what might be called a 'scratch' [lucky] shot."

That shot, Dixon's comrades believed, proved the last straw for the Indians, who'd been assured by a medicine man that no bullet could harm them. The Indians withdrew. Two weeks later, a U.S. Army surveyor's team visited Adobe Walls and measured the distance, finding it exactly 1,538 yards, just 1/8 short of a mile. →



The distance of Dixon's shot has been well documented.

Doubters—Informed and Otherwise

Over the years, a number of critics have questioned the likelihood of Billy Dixon actually hitting a target at 1,538 yards using a black powder rifle with open sights. We can put to rest questions about the range—not only was there a survey, but today's topographical map of Adobe Walls pinpoints the Billy Dixon historical marker and, directly east, the bluff atop which the cluster of riders was silhouetted against the morning sky. The map distance, carefully measured, is 7/8 of a mile.

A few years ago, a U.S. government physicist authored a professional article claiming so heavy a projectile could not have traveled that far propelled by black powder. Firearms industry writer Mike Venturino disproved that claim with a live-fire demonstration at Arizona's Yuma Proving Ground, where a computerized radar system tracked his .50-90 Sharps slugs to 3,600 yards. Interestingly, the radar calculated that his projectile would impact at 1,538 yards with only a 4.5 degree muzzle elevation, well within the adjustments on many quality vernier sights.

An even more realistic "replication" was performed by modern black powder rifle enthusiasts M.L. McPherson, Harvey Watt, Bill Falin, and Paul Armbruster. Positioning a life-size target of a mounted rider at a carefully measured 1,538 yards, they fired replica Sharps buffalo rifles using loads they believed "were probably not as accurate as the load Dixon used." After their 2004 tests, fired near Grand Junction, Colorado, they reported "using iron sights and firing over crossed-sticks . . . at 1,538 yards, we had a total of 32 hits out of the 42 shots." Five rounds were bull's-eyes. They benefited, however, from an accurate range measurement and several spotting shots, neither of which Dixon had, making his achievement all the more impressive.

Final confirmation comes, however, not from modern analysis and calculations, but from an Adobe Walls participant, an elderly Comanche warrior, Co-Hay-Yah, who later told U.S. Army Colonel W.S. Nye:

"They had telescopes on their guns. Sometimes we would be standin' way off, resting and hardly thinking of the fight, and they would kill our horses. One of our men was knocked off his horse by a spent bullet fired at the range of about a mile. It stunned but did not kill him."

Today you can visit the site of Billy Dixon's famous shot, 70 miles northeast of Amarillo, marked by a granite monument erected by the Panhandle-Plains Historical Society. Look at it yourself and appreciate what a truly fine shot it was.

Indians thought soldiers were most at a disadvantage. A Cheyenne chief who'd fought at Little Big Horn told an interviewer 30 years later that Custer's cavalymen fired so quickly at close range that they seldom hit his braves and "made it less dangerous than fighting at a distance. Then the soldiers would aim carefully and be more likely to hit you."

Inaccurate soldiers' fire sometimes encouraged the Indian belief that sacred artifacts or rituals could render them immune to bullets. For instance, the Cheyenne believed that their Nimhoyeh, a tassel of hair on a leather fringe, would turn away bullets from whoever held it. One warrior,

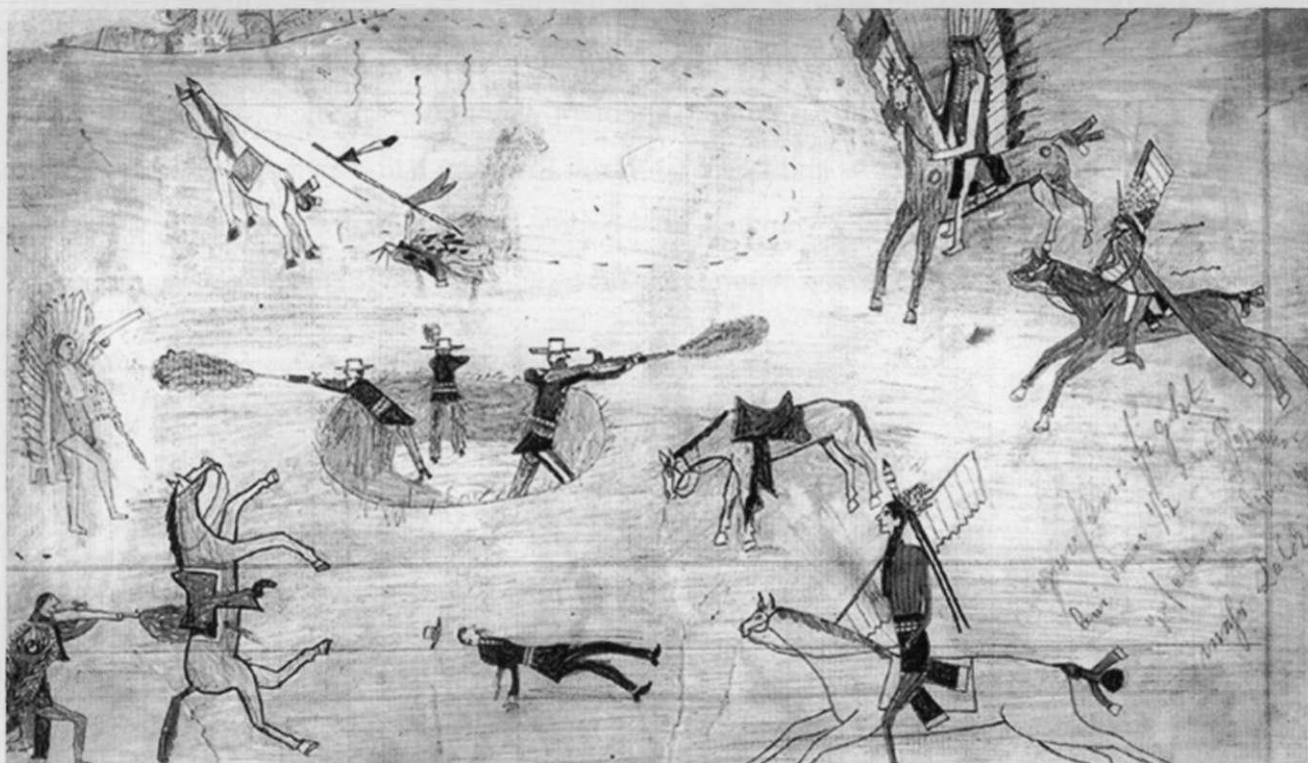
Medicine Bear, used the Nimhoyeh in an 1872 skirmish, boldly riding into the open so “soldiers could shoot at him,” recalled a Cheyenne comrade. “He moved it back and forth and up and down, and they claim it turned the bullets to one side and they did not harm him.”

Accurate sharpshooting in such circumstances, however, could have a disproportional effect. At the 8 January 1877 Battle of Wolf Mountains, a Cheyenne medicine man, Big Crow, declaring himself immune from gunfire, calmly walked along a ridge, exposing himself to long-range fire from nearly 100 troopers. “He went out again to walk along the ridge,” an Indian eyewitness related, “to shoot at the soldiers and to defy them in their efforts to hit him with a bullet. All of us others kept behind the rocks, only peeping around at times to shoot.” Unbeknownst to Big Crow, however, two sharpshooters, Sergeant Danny Burns and Corporal Byron Bronson, had crawled forward in the snow and drew a careful bead on him. Their Trapdoor rifles barked as one, and down went Big Crow, mortally wounded. Historian Jeffrey Pearson reports that his loss “destroyed the resolve of many war-



Medals of Honor to Marksmen

No Indian Wars gunfight so challenged rifle marksmanship as did the Buffalo Wallow Fight of 12 September 1874. At dawn that morning, a six-man cavalry party carrying dispatches, having ridden all night in darkness, neared the Washita River in northern Texas, where they intended to hold up during daylight. With the Red River War raging, the scouts and cavalymen knew the plains around them were teeming with Kiowa and Comanche warriors.



This Kiowa pictograph, drawn on an elk hide, depicts the Buffalo Wallow Fight.

The six riders—civilian scouts Billy Dixon (of Adobe Walls fame) and Amos Chapman, along with Sergeant Zachariah Woodall and Privates Peter Rath, John Harrington, and George Smith—topped a rise and ran into 125 mounted Indians, who immediately opened fire. Knowing it impossible to outrun the fast Indian ponies, Dixon and his comrades jumped to the ground, seized their rifles, and returned fire. There was no cover, just open prairie as far as the eye could see, burned deathly black by a recent fire. Private Smith collapsed, a slug through both lungs, and then their horses ran off, carrying away everything that was not in their hands.

Between shots, Dixon, an experienced buffalo hunter and superb marksman (three months earlier he'd shot an enemy brave at a remarkable 1,538 yards), glanced around, noticing a slight depression a hundred yards away. If they could get there, they'd stand a chance. Meanwhile, Kiowa and Comanche fire had hit Woodall and Harrington and shattered Chapman's left knee. Then a slug hit Dixon's calf.

Miraculously, the Indians, having lost a number of braves, paused to reorganize. With Dixon leading the way, Harrington, Rath, and Woodall made it to the depression, which turned out to be a dry buffalo wallow where the beasts had rolled to cool themselves. Drawing knives, they lay prone and hastily dug and pushed sod before them as minimal cover while simultaneously fighting off the Indians and covering the wounded Smith and Chapman. Somehow, they barely managed to fight off each assault by, as Dixon advised, removing the apparent leaders with well-aimed shots.

As they were outnumbered 20 to 1, it was their marksmanship—their shooting skill alone—that allowed them to hold their ground. All day they held that tiny wallow, which measured less than 10 feet across and only 18 inches deep. During lulls they retrieved Chapman and Smith. By afternoon they were running low on ammunition and desperate for water. Then the second miracle of the day, a sudden cloudburst, brought them water and caused their antagonists to pull back. During the long subsequent night, George Smith died.

At dawn Dixon crept off to find help and—in another miracle—had walked not a mile when he spotted a distant line of cavalymen, whom he signaled with rifle fire. The siege was over; the Kiowas and Comanches rode off. The rescue force commander, Major William Price, reported:

“The suffering of these men was extreme and their condition fearful. In a hole six feet square and a foot and a half deep were one corpse and three badly wounded men, the hole was half-filled with water, and they had to keep bailing to keep from being drowned out, yet these men had kept up their courage and defended themselves, until the Indians left them on the approach of my command.”

Twelve days later, having investigated the Buffalo Wallow Fight, General Nelson Miles wrote the adjutant general of the Army, recommending the Medal of Honor for all six men, calling their action “an instance of indomitable courage, skill and true heroism.” The medals were approved, but, in a terrible injustice, those for Dixon and Chapman were rescinded in 1916 because they were civilian scouts, not duly sworn soldiers. A U.S. Army Board rectified that injustice in 1989, some 114 years after the fight, by restoring their well-deserved medals.

riors” and that “[many] Cheyennes deserted the ranks, interpreting Big Crow’s death as a sign of impending disaster.”

SHARPSHOOTERS IN ACTION

Precise long-range shooting was the exception rather than the rule in frontier fighting, but both soldiers and Native American riflemen still had some impressive engagements.

At a skirmish on the North Platte River on 27 July 1865, sharpshooter Hank Lord made a phenomenal shot, most likely with a personally owned Sharps rifle. His commander, Lieutenant William

Drew, recounted how his men watched horrified as a Sioux brave hacked away at the body of a fallen cavalryman “fully a thousand yards” away. “I believe I will have a whack at him,” announced Lord.

Lieutenant Drew continues:

“Elevating his sight to a thousand yards, he took deliberate aim and fired. The Indian had his hatchet raised at the time, and was just about to strike it into the head of the dead soldier; but the bullet was too quick for him. It struck him in some vital part, for the hatchet dropped from his hand and he fell over on the ground . . . he managed to stagger to his feet and succeeded in getting on his pony and started away, but he was badly hurt . . .”

A single well-placed round helped bring to a close the tragic Nez Perce War of 1877. After evading or ambushing pursuing Army forces across Wyoming, Washington, and Idaho, the Nez Perce stood to fight in Montana’s Bear Paw Mountains on 30 September. Chief Looking Glass, the Nez Perce war chief—a superb tactician and an able leader—stood above a rifle pit, believing himself beyond the army riflemen’s range. An eyewitness, Yellow Wolf, later recounted, “It must have been a sharpshooter killed him. A bullet struck his left forehead, and he fell back dead.” Yellow Wolf was correct. That deliberate shot had been fired by Milan Tripp, a scout-sharpshooter under General Nelson Miles. History does not record the distance, but it must have been considerable for Looking Glass to have left the safety of his rifle pit. A few hours after Looking Glass fell, Chief Joseph surrendered his tribe, reciting his memorable declaration, “From where the sun now stands, I will fight no more, forever.”

Some Indians apparently did not grasp the fact that long-range accuracy might vary significantly from one shooter to another. For, as in the case of



Nez Perce War Chief Looking Glass was shot dead by U.S. Army scout-sharpshooter Milan Tripp. The chief’s death hastened the end of the 1877 Nez Perce War.



Bloody Knife (left), General Custer's favorite Indian scout, was picked off by a Sioux sharpshooter at the Little Big Horn.

Looking Glass, the Apache wars found similar instances of braves standing boldly in the open, mistakenly thinking they were beyond *any* rifleman's range. Captain John Bourke writes of one such encounter, where an Apache brave "climbed to the top of a high rock . . . and fancied himself safe from our shots, and turned to give a yell of defiance. His figure outlined against the sky was an excellent mark, and there was an excellent shot among us to take full advantage of it." That sharpshooter was a blacksmith, John Cahill, who brought down the warrior with a single shot.

No cavalrymen survived Custer's Last Stand to describe it, but a few miles away the rest of his 7th U.S. Cavalry Regiment managed to fight off the Lakota Sioux and Northern Cheyenne during a daylong encirclement and live to tell the tale. Atop a grassy bluff, 14 officers and 340

troopers withstood repeated assaults, plus the carefully placed fire of several Indian sharpshooters. One of the first to fall to these long-range marksmen was Bloody Knife, Custer's favorite scout, of mixed Arikara and Sioux heritage. Killed instantly by a head shot, Bloody Knife was talking to Major Jesse Reno when he was hit; this so shocked Reno that he "lost his sense and barked out orders that did not make any sense before fleeing."

"There were one or two Indians on a particular point who had long-range guns," reported Lieutenant Charles Varnum, Custer's chief of scouts, who would receive the Medal of Honor for his actions that day. These riflemen proved particularly deadly.

Sergeant John Ryan, also fighting with Reno's detachment, told debriefers that

"one Indian in particular . . . [was] a good shot. While we were lying in this line he fired a shot and killed the fourth man on my right. Soon afterward he fired again and shot the third man. His third shot wounded the man on my right . . ."

A cavalry volley, he believed, hit the sharpshooter, who ceased firing. But that certainly was not the only Indian sharpshooter, because hours later Private Richard Dorn was shot dead by a single long-range shot.

Nearby, Private Charles Windolph exchanged fire with an Indian sharpshooter who fired from 1,000 yards with nearly perfect aim. "I could see a figure firing at me from a prone position," he recounted. "Looked like he was resting his long-range rifle on a bleached buffalo head. I tried my best to reach him with my Springfield carbine, but it simply wouldn't carry that far."

After a nearby trooper was shot "straight through the heart," a ricocheting bullet tore into Windolph's coat; then another long-range slug "tore into the hickory butt of my rifle, splitting it squarely in two." Windolph managed to evade the sharpshooter's fire, but like many white men of that period, he could not accept that so skilled a marksman was an Indian. He later wrote:

"Somehow I always figured that the sharpshooter who had killed Jones, hit me and split my rifle butt, must have been either a renegade white man, or a squaw man of some kind or other. He could shoot too well to have been a full-blood Indian."

This Little Big Horn sharpshooting was not entirely one-sided. Sweltering under the hot June sun, Reno's encircled men became desperate for water, but the nearest stream lay in an exposed position, downhill. Four men—George Geiger, Henry Mechlin, Otto Voit, and the previously quoted Charles Windolph—volunteered to advance to an exposed position and provide well-aimed covering fire for a water detail. The four were later awarded Medals of Honor, and "it was due to their vigilance, reckless exposure of person and incessant and expert marksmanship that none of the water-carriers was killed by the Indians . . ."

The Little Big Horn was hardly the first time that Plains Indians demonstrated long-range shooting skills. The previous year, on 25 November 1875, Captain John Bourke witnessed a superb Cheyenne rifleman hit a soldier at long range when he merely lifted his head. In the same skirmish, Cavalry Lieutenant Luther North reported:

"This fellow must have been a crack shot, for in the afternoon a couple of soldiers started across a little valley from one hill to another, and they were at least six hundred yards from where he was hiding behind a rock. The soldiers were about one hundred yards apart and were running. When the first man got about half way across, the Indian shot and the soldier dropped. The other soldier ran on, and when he was within twenty feet of the first man the big gun boomed again, and he went down."



Desperate buffalo hunters employ long-range Sharps rifles to fight off Plains Indians.

Farther west, the Modoc Indians showed that they, too, could employ precision rifle fire. In April 1873, Modoc sharpshooters ambushed a 65-man army reconnaissance force in northern California, killing four out of five officers and 24 soldiers, plus wounding another 21, inflicting 75 percent casualties. As Lieutenant Harry Moore described it:

“At the first fire, the troops were so demoralized that officers could do nothing with them. Capt. Wright was ordered with his company to take possession of a bluff, which would effectively secure their retreat, but Captain Wright was severely wounded on the way to the heights, and his company, with one or two exceptions, deserted him and fled like a pack of sheep.”

While the Modocs demonstrated effective massed fire, no tribe could compare with the Nez Perce for deliberate, selective fire, shrewdly employed. The army's most successful Indian Wars leader,

Shooting Sticks

Shooting sticks have become fairly common in recent years, but as these photos demonstrate, Native American warriors used similar supports 150 years ago. Despite living more than 500 miles apart, these tribes used nearly identical rifle stabilizers.

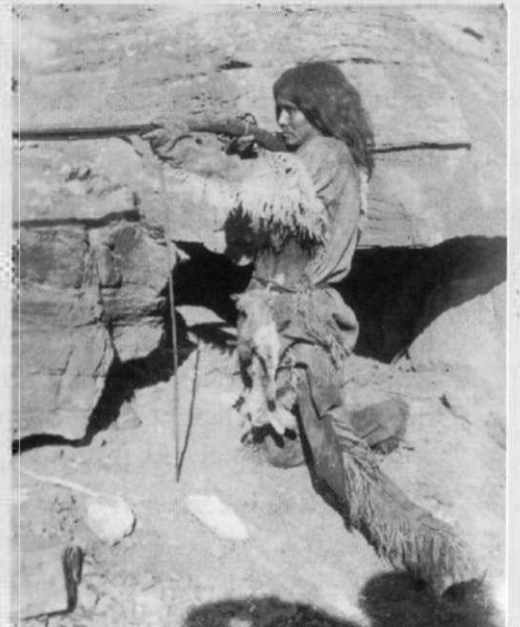


Above: In California, a Modoc warrior stabilizes his rifle with a shooting stick.

Right: White Mountain Apache Chief Alchisea poses with his favorite rifle and a supporting shooting stick.



Far right: A Paiute warrior demonstrates how he uses a shooting support stick.



General Nelson Miles, respected the Nez Perce as “the boldest men and best marksmen of any Indians I have ever encountered.” From their very first engagement at the Battle of White Bird Canyon on 17 June 1877, Nez Perce War Chief Looking Glass employed sharpshooters to target officers and, equally, buglers, because that was how officers commanded their troops under fire. “Do not shoot the common soldier,” instructed Nez Perce Sub-Chief Otstotpoo. “Shoot the commander!”

At the first exchange of fire, a Nez Perce sharpshooter killed bugler Bernard A. Brooks. Then, Yellow Wolf, a Nez Perce rifleman, recalled:

“I looked for an officer. He was just back of his men. All were crouching. I fired, and that officer went down. Another one seemed to take his place, I dropped him. Those officers did not get up. No one now to drive the common soldiers, they fell back in retreat.”

At almost the same instant, another bugler raised his trumpet to his lips, and an elderly brave, Fire Body, shot him off his horse. Seeing this, Captain David Perry turned to the unit’s final bugler, a Trooper Daly, to sound a charge—but Daly informed him that he’d lost his horn somewhere along the trail. Perry had lost control of his cavalymen. It was a pattern that would be repeated over the next three months.

Colonel John Gibbon, whose troops fought the Nez Perce at the Battle of the Big Hole, afterward reported their fire as surprisingly deadly, “and at almost every shot of their rifles one of our men fell, and this, too, when our men were at a distance from the enemy, such as rendered it utterly impossible for them to compete with the Indians in the accuracy of their fire.”

The Nez Perce’s advantageous employment of sharpshooters, combined with unpredictable maneuvers and sheer tenacity, carried them along a 2,000-mile, summer-long campaign. And by the time it was over and Chief Joseph had surrendered his people, an entire era was ending. As the last of America’s nomadic natives resettled in reservations, rifles, sharpshooters, and the tactics that combined them were advancing into a new, modern age.

TECHNOLOGY MARCHES ON

The American Civil War had seen the limited use of metallic cartridges that proved their usefulness, especially in repeaters such as the Henry rifle and Spencer carbine. Metallic cartridges were faster to load and ensured a more consistent powder charge from shot to shot. This increased the likelihood of uniform performance between rifles and between shooters, creating a degree of predictable

accuracy. Further, unlike loose gunpowder, these preloaded rounds offered better protection from dampness and contamination, which improved reliability. And, of no small significance, metallic cartridges kept rifle chambers free of powder fouling, boosting the number of rounds that could be fired before cleaning.

Early metallic cartridges relied on rim-firing, meaning that a tiny ring of shock-sensitive explosive powder had been folded into their rims. When struck by the rifle's hammer, this sensitive powder exploded, setting off the black powder very much as percussion caps previously had done. Although reliable, the rimfire had limited usefulness because it required a thin case edge—so thin that the cartridge could not handle the higher pressures of powerful loads. Further, the rimfire was a one-time case and impossible to reload. There had to be a better way to prime cartridges.

Colonel Hiram Berdan, already famous for founding the Union Army's Sharpshooter Regiments, came

up with the solution. In 1866, Colonel Berdan filed Patent Number 53388, his design for a centerfire primer that was inserted into a recess at the cartridge base. This recess contained a tiny spike, an "anvil," so that his primer would detonate when struck by a firing pin. It was less expensive than a rimfire cartridge, although

intended to be used once and not reloaded. It was said that such a round was, "Berdan-primed." Throughout the world—but not in the United States—it was an instant success and continues to be widely used today.

Ironically, Americans preferred the Boxer primer, invented by Englishman Edward M. Boxer of the Royal Arsenal at Woolrich. Although it resembles the Berdan primer, the Boxer is self-contained with its "anvil" inside, making it easy to reload because the primer is simply replaced. These types of cartridges, whether Boxer- or Berdan-primed, are called centerfire, because the primer is seated in the base's center.

An even more important



The famous founder of the Union Army's sharpshooters, Colonel Hiram Berdan invented the cartridge primer that bears his name and is used worldwide to this day.



Boxer primer (left) is used by U.S. .30-06 cartridge, while Russian 7.62 x 54mm uses the Berdan primer. Note that the U.S. cartridge is rimless and the Russian is rimmed.

Civil War Veterans Found the NRA

Six years after the Civil War, a handful of senior veterans met in New York City to discuss the marksmanship shortcomings they'd witnessed and to consider the small-arms implications of the 1870–71 Franco-Prussian War. Inspired by a series of articles edited by Colonel William C. Church in the *Army and Navy Journal*, America's primary military periodical, they saw a need to improve the country's firearms proficiency, especially through a grassroots, nationwide, civilian organization.

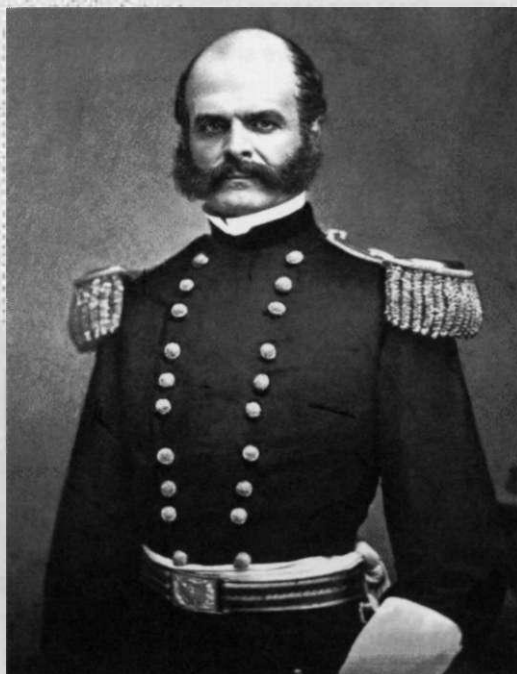
On 24 November 1871, these men founded the National Rifle Association (NRA), with retired General A.E. Burnside as president; Colonel Church, vice-president; General John B. Woodward, treasurer; and General George Wingate, secretary. This proved a most prestigious organization, with future NRA presidents that included Generals Ulysses S. Grant and Philip Sheridan.

Within two years, the infant NRA helped construct a world-class rifle range at Creedmoor, Long Island, this at a time when civilian shooting ranges simply did not exist in the United States. This led, two years later, to Creedmore hosting the world's first intercontinental rifle competition, won by the American team and witnessed by 5,000 spectators. Gradually, rifle teams and rifle ranges spread across the land, while the NRA devised criteria so any civilian rifleman could earn marksman and sharpshooter badges.

To improve rifle marksmanship among its soldiers, in 1881 the U.S. Army followed

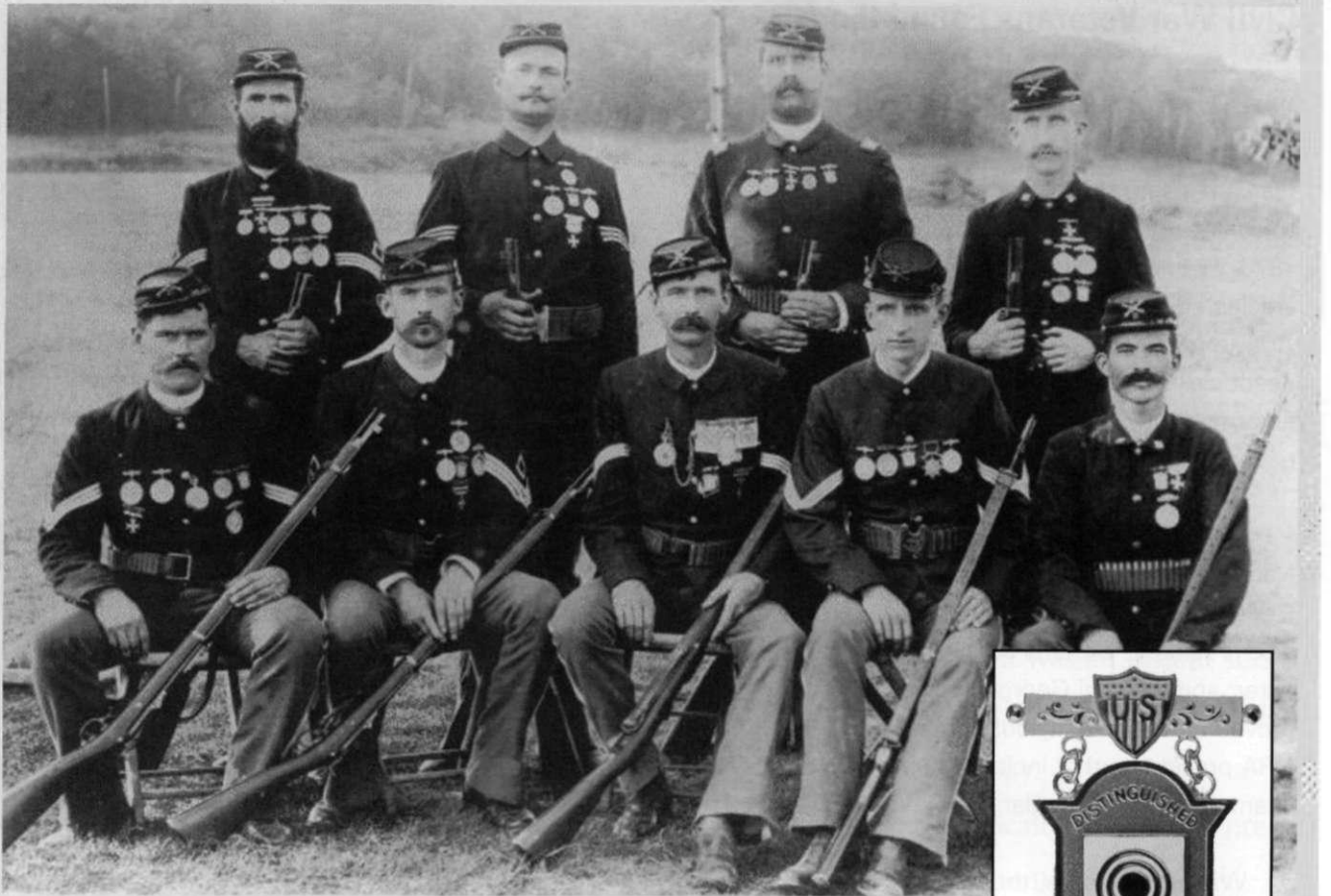
suit, setting up unit-level competitions and implementing its first Army-wide rifle competition at Fort Leavenworth, Kansas. Three years later, the Army created the Distinguished Rifleman's Badge, earned through regional and national-level competitions. The Army began publishing guides and manuals on rifle shooting, and, for the first time in American history, long-range shooting became a subject of serious study. Along with the NRA's how-to publications, this accumulating knowledge built the bedrock for future growth in military and civilian marksmanship and rifle development.

Another noteworthy title was conferred on service rifle shooters in the NRA's President's Match, first conducted at Camp Perry in 1878. Some 24 years later, President Theodore Roosevelt made it a tradition for the match winner to receive a congratulatory presidential letter, while the top scorers were designated President's Hundred. Military personnel earning this distinction are entitled to wear a President's Hundred tab on their uniforms. A correlative program evolved in each state, with the top National Guard or Reservist marksmen awarded a special badge — including the author, a 1983 Governor's Ten recipient.



General Ambrose Burnside, founding president of the National Rifle Association.

This competitive marksmanship system had a profound influence on U.S. sniping and sharpshooting. Before he served in Vietnam, famed U.S. Marine Corps sniper Carlos Hathcock, for instance, matured his long-range shooting skills as a competitive rifleman, winning the NRA's 1,000-yard Wimbledon Match at Camp Perry, Ohio, in 1965.



The U.S. Army's Distinguished Marksmen Team, 1897. Long-range rifle shooting improved markedly, thanks to the NRA and Army competitive shooting programs. Inset: U.S. Distinguished Rifleman Badge.



ammunition development—especially for sharpshooters—came in the way of a new propellant. From the rifle's earliest days, no matter how undetectable a sharpshooter's stalk or how well concealed his firing position, upon firing he was highlighted by a plume of visible smoke. Right through the Civil War this remained the sharpshooter's most fundamental vulnerability.

Then, in 1884 a French chemist, Paul Vieille, perfected smokeless gunpowder. Produced from an acid treatment of cellulose, the French army called Vieille's nitrocellulose compound *poudre B* (powder B) and incorporated it in that country's first smokeless cartridge, an 8mm round for the Lebel rifle, Model 1886. In Britain a similar powder was called cordite, while American chemists invented their own processes for making smokeless powder.

In addition to improving a sharpshooter's chances of survival, smokeless powder also enhanced his long-range shooting because, by bulk or weight, it yielded more energy (and thus more velocity)

than black powder. This meant that projectiles flew faster—*twice the velocity of those from black powder rifles*—yielding a flatter trajectory, more forgiving of imperfect range estimates while also increasing a shooter's maximum range. Further, the terminal effect, or deadliness, increased because a faster-flying bullet delivered more energy into its target. Some Civil War veterans who later fought in the Spanish-American War noticed that the wounds inflicted by Spanish Mauser rifles using smokeless powder caused significantly more tissue damage than the wounds they'd seen at Gettysburg or Petersburg inflicted by low-velocity lead balls and black powder.

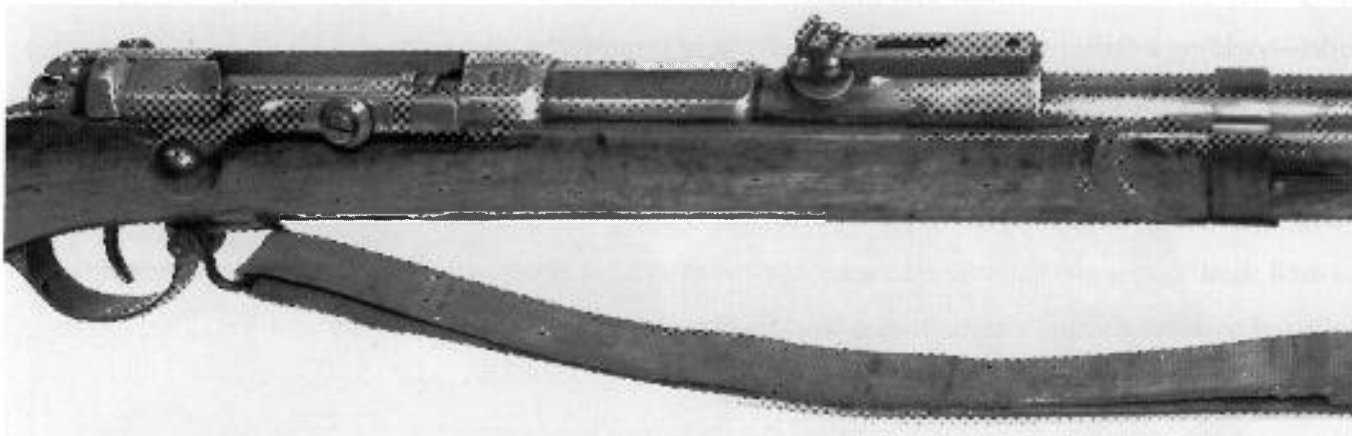
BIRTH OF THE BOLT GUNS

Evolving parallel with smokeless powder and metallic cartridges was a new generation of rifles. As had happened earlier in the 19th century, most of these developments began in Europe.

The first bolt actions were called “needle guns” because their needle-shaped firing pins flew forward to penetrate a paper cartridge and strike a primer attached to the bullet's base, setting it off. The first such rifle, the German *Zundnadelgewehr* (or firing-pin rifle), was designed by Johann Nikolaus von Dreyse and entered service in 1848. It was soon followed by a French version, the 1866 Chesspot. In addition to being crude bolt actions, these were the first major military rifles to eliminate external hammers. Since firing required only the release of a firing pin, the trigger could be lighter, allowing better trigger control.



An Austrian needle-fire gun, the predecessor to the first bolt actions. Note the “needle” (right) protruding from the receiver.



The world's first true bolt-action rifle, Germany's Mauser Model 1871.

Five years later, Germany fielded its Model 1871 rifle, the world's first true bolt action and the first to employ a true center-fire cartridge, an 11mm round. This was also the first military arm designed by brothers Paul and Wilhelm Mauser.

Germany's continental rival, France, then fielded its Model 1886 rifle, the world's first military arm to fire a smokeless cartridge, the 8mm Lebel. At a time when the U.S. Army's .45-70 cartridge generated about 1,300 feet per second muzzle velocity, the French Lebel was a veritable rocket, its 198-grain bullet relatively screaming at 2,380 feet per second.

Britain, meanwhile, had accepted the need for a bolt-action repeater and metallic cartridges, incorporating both features in its new Lee-Enfield, which fired a .303 smokeless rimmed round. Additionally, its action, designed by James Paris Lee, cocked on closing, enabling a rifleman to bolt it much faster than a Mauser or Lebel, which cocked on opening. And, well ahead of its time, the .303 had a detachable, 10-round magazine.

That same year, 1888, the German army adopted a modern smokeless cartridge, the 7.92 x 57mm (also called the 8mm Mauser), which would serve its forces through two world wars. Building a new rifle around this excellent cartridge, the Mauser brothers perfected an action so well designed that it's still produced today, the Model 1898 Mauser.

Even Czarist Russia saw the wisdom of bolt-



All developed in the late 19th century, these military cartridges would see service for 70 years or more. They are (left to right) the French 8mm Lebel, .30-40 Krag, German 7.92mm, British .303, Russian 7.62 x 54mm, and U.S. .30-06.

action repeating rifles, and in 1888 its Tula factory manufactured Colonel Hiram Berdan's rifle design. Three years later this evolved into the famous Mosin-Nagant Model 1891, which fired a new smokeless rimmed cartridge, the 7.62 x 54mm. Like its German Mauser and British Lee-Enfield counterparts, this rifle would see wartime service through 1945 and, with minor modification, serve as that country's primary sniper weapon.

All these new cartridges reflected a century-long trend that reduced projectile diameter while increasing velocity; just 40 years earlier, the average military round was .50 caliber traveling at about 1,100 feet per second. Now, most military rounds had shrunk to .30 caliber and exited the muzzle at about 2,400 feet per second.

THE KRAG-JORGENSEN RIFLE

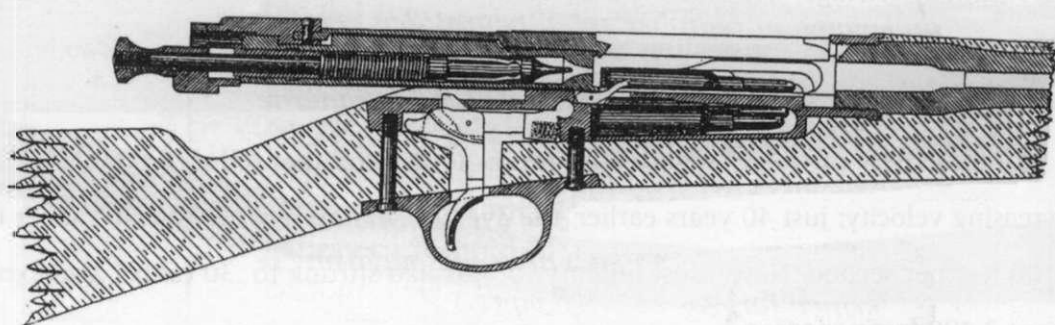
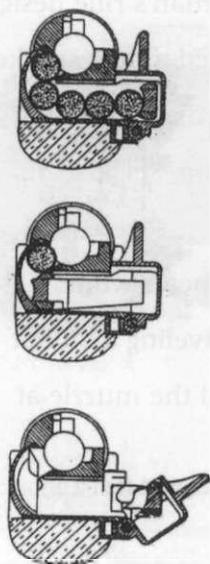
By the late 1880s, U.S. military authorities finally recognized that the single-shot, .45-70 Trapdoor Springfield was inferior to the shoulder arms of every major world power. Thus began the search for America's first bolt-action repeater.

A board of Army officers convened in New York in 1890–91 and examined some 53 rifles, eventually selecting a design by Norwegian army Captain Ole Krag and Mr. Erik Jorgensen. Their .30/40 Krag was designated the U.S. Rifle, Model 1892.

What distinguished the Krag was its magazine well, which wrapped around the action and was loaded through a boxlike gate on the receiver's right side. Unlike Mausers, Leblers, and many other rifles, this enabled a soldier to load additional rounds at any time without opening the bolt. The Krag's .30-caliber, 220-grain bullet was propelled by 40 grains of smokeless powder, achieving 2,000 feet per second muzzle velocity, which made it ballistically inferior to British, Russian, and German rounds. Still, this was an improvement over the .45-70, boosting an American soldier's maximum



The sniper version Krag-Jorgensen (*Skarpskyttergevaer*) was not seen outside Scandinavia.



The great advantage of the Krag-Jorgensen was its ability to be reloaded without opening its bolt.

range to 400 yards and even farther in the hands of a talented sharpshooter. Riflemen I trust tell me the best accuracy they've had with a Krag using military-quality ammunition is about 3 1/2- to 4-inch groups at 100 yards. This, combined with the Krag's ladder-style sight, put a sharpshooter's maximum range at perhaps 500 yards, despite its sight offering settings all the way to 2,000 yards. Extreme-range shots, of course, would be fired as platoon volleys against groups of enemy soldiers, not as individual shots against point targets.

SHARPSHOOTING IN THE SPANISH-AMERICAN WAR

Significant numbers of Krag bolt actions had hardly reached American soldiers' hands when the Spanish-American War erupted. Regular army units had the new rifles, but National Guard infantry regiments and most newly formed volunteer units went into combat with obsolete Trapdoor Springfields firing black powder cartridges.

Spanish sharpshooters, armed with modern Mauser rifles chambered for a 7mm round, often ambushed or delayed the advancing Americans and assisted the defense of major positions, such as San Juan and Kettle Hills. The 71st New York Infantry "got along at a fair pace," wrote Lieutenant Herbert H. True, "until we struck thick underbrush that . . . concealed Spanish sharpshooters with Mauser rifles and smokeless powder." Countering them, he noted, was frustratingly difficult. "It was like trying to find a needle in a haystack, this locating the Spanish sharpshooters, for while their bullets kept singing in our ears we couldn't see them hidden as they were in the trees and bushes."

The One-Shot War

On 2 April 1885, the people of El Salvador preserved their independence because of a single, well-placed sharpshooter's bullet.

That morning an invading army from neighboring Guatemala reached the town of Chalchuapa and, with no significant force opposing it, threatened to overrun the entire country. As the Guatemalan army reached



the deserted town, however, its officers hesitated to advance, fearing an ambush. General Justo Rufino Barrios, their charismatic commander, also serving as Guatemala's *el presidente*, chided them for their fears.

Detested for his aggressive nature but equally revered for his liberal reforms, General Barrios had a checkered past. While he had implemented freedom of the press, he'd also suppressed the Catholic Church and anyone who opposed his reforms, quelling several revolts. No worse a man than Napoleon, Barrios believed that so long as his intentions were good, any means to implement them were justifiable. Twice he had survived attempts to assassinate him.

Convinced that the only way to cure his region's poverty was to unite El Salvador, Honduras, Costa Rica, and Nicaragua with Guatemala, he attempted to persuade his neighbors to unify—under his leadership, of course. When they declined, he invaded El Salvador, his first target for forcibly unifying the region.

One well-placed shot halted the 1885 attempt of General Justo Rufino Barrios to seize El Salvador.

And now, with his army unnecessarily halted outside Chalchuapa—its gates open and no apparent defenders—General Barrios led the way, the first man to walk onto the town's silent streets. What Barrios did not realize was that a handful of Salvadoran sharpshooters had been left behind to delay the invaders, and one of them must not have believed his good fortune: there, in the open, strolled the president of Guatemala, well within rifle range.

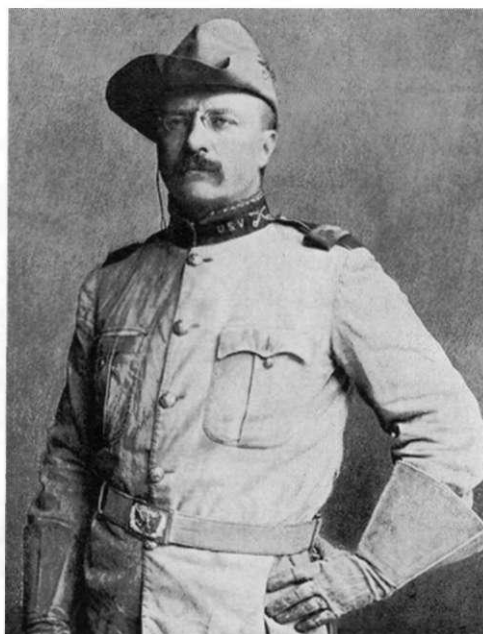
It took only one shot, which instantly killed General Barrios. The effect was immediate and amazing. As one account puts it:

"When the foremost Guatemalan troops saw Barrios fall, they were seized with panic and fled, meeting the advancing army and throwing them into confusion; and though the officers fired among them to compel them to turn and advance again, the panic spread, and soon the whole army was in disordered flight . . ."

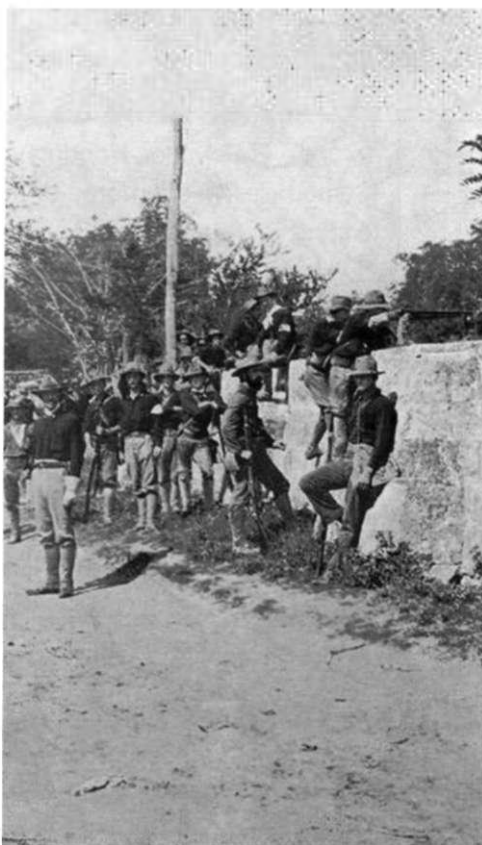
And thus ended the invasion, and with that El Salvador—and the other targeted states in Central America—remained independent, thanks to one bullet, fired by one rooftop sharpshooter.

The only volunteer unit properly armed with Krag's was Teddy Roosevelt's famous Rough Riders, officially designated the 1st U.S. Volunteer Cavalry Regiment. The first Rough Rider to shoot an enemy sharpshooter, Thomas Isbell, was also the first to be wounded by a sharpshooter. Half Cherokee Indian, Isbell spent 30 minutes stalking and swapping shots with hidden gunmen, but by then he'd suffered seven gunshot wounds and finally agreed to be taken to a medical aid station. "The man's wiry toughness was as notable as his courage," wrote Colonel Roosevelt.

During a heated skirmish at Las Guasimas, Rough Rider Carl Lovelace recalled "the bullets were coming in fast, and we couldn't tell exactly where they came from." To his surprise, a *New York Journal* reporter, Richard Harding Davis, "mounted a stump, took out his field glasses, and surveyed the country in front of him. After a minute's search with Mausers



Colonel Theodore Roosevelt selected his 20 finest rifle shots as the Rough Riders' "detail of picked sharpshooters."



U.S. Army sharpshooters exchange fire with enemy riflemen in Manila.

whistling all about him, he located the Spaniards; then grabbing a gun from a wounded man, he sat for several minutes on the stump, pumping lead at them as rapidly as he was able; his absolute coolness during this little affair was remarkable." The modest reporter later wrote home, "I thought as an American I ought to help."

"The Spanish sharpshooters were doing terrible execution along this road all day," wrote Private Robert Travis of the 4th U.S. Infantry Regiment. "They shot men who were helping the wounded, even the Red Cross hospital corps were not exempt from these fiends in human shape. I saw the body of one Red Cross Surgeon lying by the roadside. He had been killed while dressing the wounds of a soldier, who had been shot by the sharpshooters, concealed in the trees."

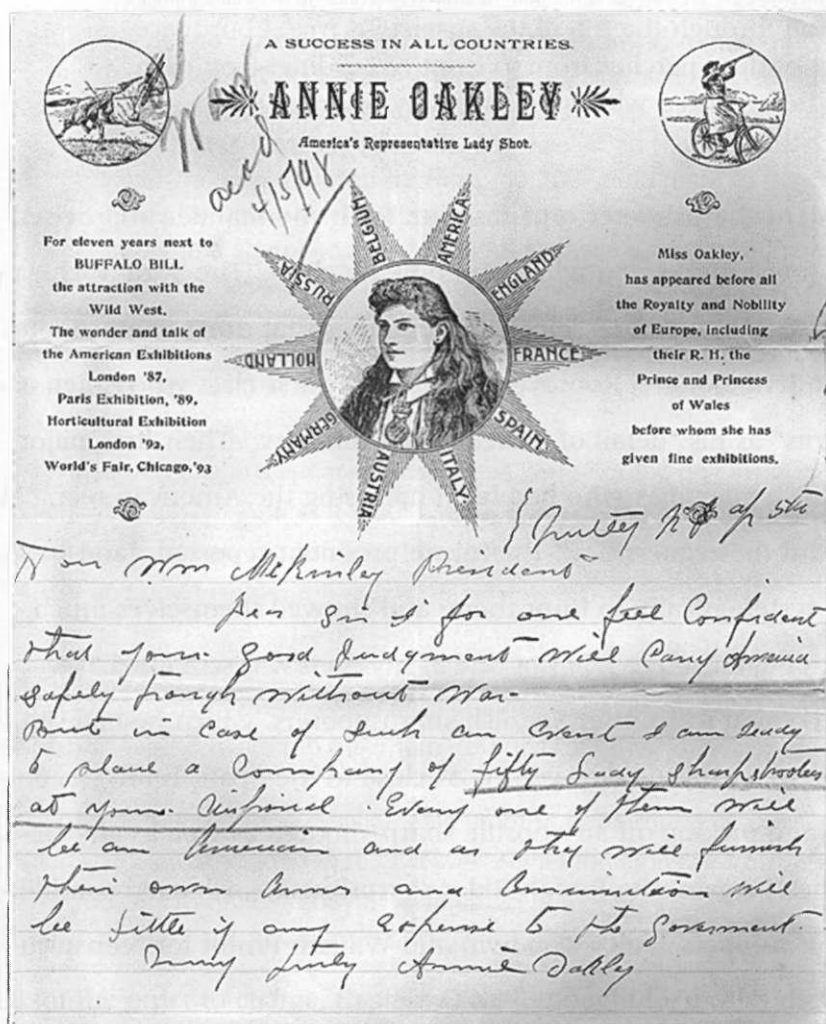
Annie Oakley's Sharpshooters

Theodore Roosevelt was not the only prominent American who offered to raise a unit for the Spanish-American War. Miss Annie Oakley—the sharpshooting star of Buffalo Bill's Wild West Show and an incredible shot with rifle, pistol, and shotgun—sent a personal note to President William McKinley, volunteering to recruit and lead an all-woman body of sharpshooters.

"I am ready to place a company of fifty lady sharpshooters at your disposal," she wrote the president. "Every one of them will be an American and as they will furnish their own arms and ammunition will be little if any expense to the government."



Annie Oakley, America's finest female sharpshooter.



Oakley's letter to President McKinley offered to raise a "company of fifty lady sharpshooters" for the Spanish-American War.

Though she was never called on to actually organize such a unit, there could be no doubt about Oakley's sincerity or her abilities, for she was famous for shooting a cigarette from the mouth of any volunteer brave enough to assist her act. Indeed, during one such shooting demonstration on a European tour, the volunteer holding that cigarette was Kaiser Wilhelm of Germany, infamous for later launching World War I. A delighted royal audience watched her bullet flick ash from the Kaiser's cigarette. It's interesting to speculate how many million lives might have been saved had that one time Annie Oakley slightly missed her target.

Lieutenant Jacob Kreps of the 22nd U.S. Infantry Regiment reported, "Snipers stationed in the trees became a major problem. The snipers could not be seen; however, their fire was devastatingly accurate."

Rough Rider Alexander Wallace noted that American casualties on San Juan Hill were 260 dead and 1,180 wounded. "Of this number," he emphasized, "35 percent were from sharpshooters in the trees."

While respecting the Spanish sharpshooters for their "courage and skill," Colonel Roosevelt found them a perplexing foe, writing:

"In our front their sharp-shooters crept up before dawn and either lay in the thick jungle or climbed into some tree with dense foliage. In these places it proved almost impossible to place them, as they kept cover very carefully, and their smokeless powder betrayed not the slightest sight of their whereabouts. They caused us a good deal of annoyance and some little loss, and though our own sharp-shooters were continually taking shots at the places where they supposed them to be, and though occasionally we would play a Gatling or a Colt [machine gun] all through the top of the suspicious tree, I but twice saw Spaniards brought down out of their perches from in front of our lines—on each occasion the fall of the Spaniard being hailed with loud cheers by our men."

On the U.S. side there was no standard sharpshooter organization. Each commander improvised as he saw fit, selecting and pooling his finest marksmen when and how he chose. The 33rd Michigan Volunteer Infantry Regiment, for instance, employed 18 selected riflemen as that unit's sharpshooter component. In the case of the Rough Riders, Colonel Roosevelt selected 20 "first-class woodsmen and mountain men who were also good shots" as his "detail of picked sharp-shooters." Their first major assignment was to hunt down pro-Spanish guerrillas who had been harassing the American rear. "My sharp-shooters felt very vindictive toward these guerrillas," the future president reported, "and showed them no quarter. They started systematically to hunt them, and showed themselves much superior at the guerrillas' own game, killing eleven, while not one of my men was scratched."

Roosevelt later called on his 20 marksmen to counter Spanish sharpshooters, which he had slip into the jungle before dawn, "and there to spend the day, getting as close to the Spanish lines as possible, moving about with great stealth, and picking off any hostile sharp-shooter, as well as any soldier who exposed himself in the trenches." Again, the Rough Rider sharpshooters achieved considerable success, with Roosevelt singling out troopers James Goodwin and William Proffit for "conspicuously good service."

Another of Roosevelt's favorite Rough Riders was Captain William "Bucky" O'Neill, a former gun-fighter and frontier lawman from Prescott, Arizona. As the Rough Riders waited nervously near San Juan

"The Finest Body of Marksmen in the World"

Thanks to a July 1893 article in *New England Magazine* by journalist Price Collier, we have a clear picture of U.S. Army marksmanship standards in the waning days of the Trapdoor Springfield rifle. Of particular interest is the army's emphasis on "skirmish" firing at unknown distances while on the move, and the high accuracy required to make sharpshooter.

Reporting from a western frontier post, Collier wrote:

"In the summer months much of the time of both officers and men is taken up with target practice. No body of soldiers in the world are so proficient as marksmen as are those of our army. There are two months of target practice, with an extra month of pistol practice for the cavalry. The [Trapdoor] Springfield carbine and rifle are used, and the firing is done at 200, 300, 500 and 600 yards, and at 800 yards for sharpshooters, and in addition there is skirmish firing. In the skirmish firing a line of men start at a distance of 600 yards from a line of silhouette figures in sets of three, representing a man lying down, kneeling and standing, each man having a set of these figures at which he fires. Five halts are made anywhere between 600 and 200 yards from the figures, at the discretion of the officer in command. Each halt is for thirty seconds, and each man must fix his sight and fire two shots at each halt. The men then retreat from the 200-yards mark to the 600-yards mark, halting again five times and firing two shots at each halt. This teaches men to think and to act quickly. To become a sharpshooter, a man must make a total of 500 with the rifle or 450 with the carbine. He has twenty shots each at the bulls-eye target, at 200, 300, 500, 600 and 800 yards, with a possible total of 500 [points], and two skirmish runs with twenty shots each with a possible total of 200; so that to become a sharpshooter he must make 500 out of a possible 700 at the combined bulls-eye target and skirmish firing."

Analyzing this, it's apparent that these were "go/no-go" silhouette targets, with the shooter scoring five points for each hit. At first it would seem that scoring 500 out of a possible 700 points to make sharpshooter wasn't very demanding, but, looking closer, it was a pretty tough course of fire, especially with a .45-70 and open sights.

Assuming the rifleman had hit half his skirmish targets—fired at unknown distances—this means he'd have to score *with every single shot* at 200, 300, 500, and 600 yards during the bull's-eye (or known distance) phase, to make the minimum 700 points.

After witnessing the considerable amount of ammunition consumed for training and its impressive results, Collier concluded that "it is well within the limits of truth, therefore, to affirm that the American army today is the finest body of marksmen in the world."

Hill for the order to charge, Captain O'Neill thought he'd calm them by striding openly about, oblivious to enemy fire. A sergeant warned, "Captain, a bullet is sure to hit you." O'Neill scoffed at the notion, declaring, "Sergeant, the Spanish bullet isn't made that will kill me."

Momentarily, O'Neill paused to speak to an officer and, according to Colonel Roosevelt, "as he turned on his heel a bullet struck him in the mouth and came out the back of his head; so that even before he fell, his wild and gallant soul had gone out into the darkness."



An African American soldier with the 10th Cavalry shoots a Spanish sharpshooter in Cuba.

O'Neill's friends and admirers later erected a life-size statue to immortalize him, which stands today at the Yavapai County Courthouse in Prescott, Arizona.

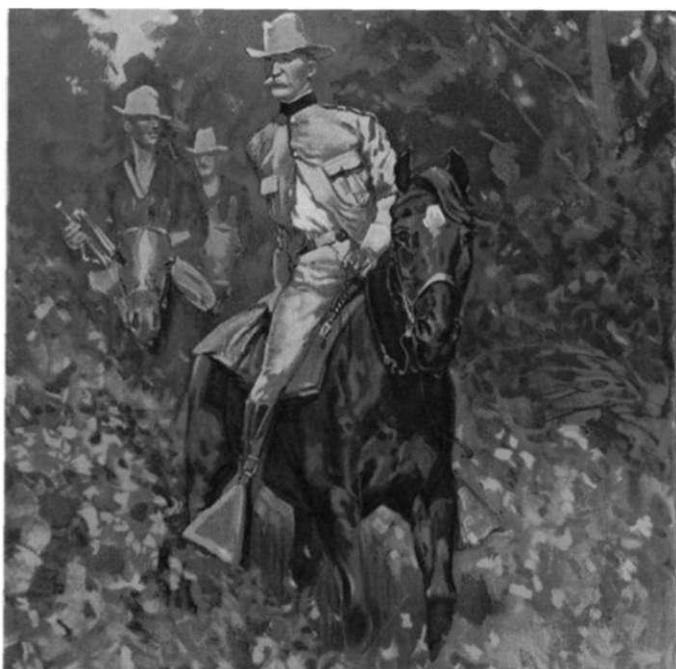
Quite likely the finest shooting by an American sharpshooter in Cuba was performed by First Lieutenant Charles Muir of the 2nd U.S. Infantry Regiment. An Indian Wars veteran and crack shot, he'd taken first place in several rifle competitions, in 1888 winning the Army's Department of Missouri Championship and earning a Distinguished Rifle Badge. On 2 July 1898, at Santiago, he disregarded heavy enemy fire to pick off the entire crew of a Spanish artillery piece, firing one well-placed shot after another. Awarded the Distinguished Service Cross, Muir went on to fight insurgents in the Philippines and then the Chinese Boxers in 1900. Eventually the sharpshooter lieutenant made two-star general and commanded the 28th Infantry Division in France in World War I.

Action in the Philippines

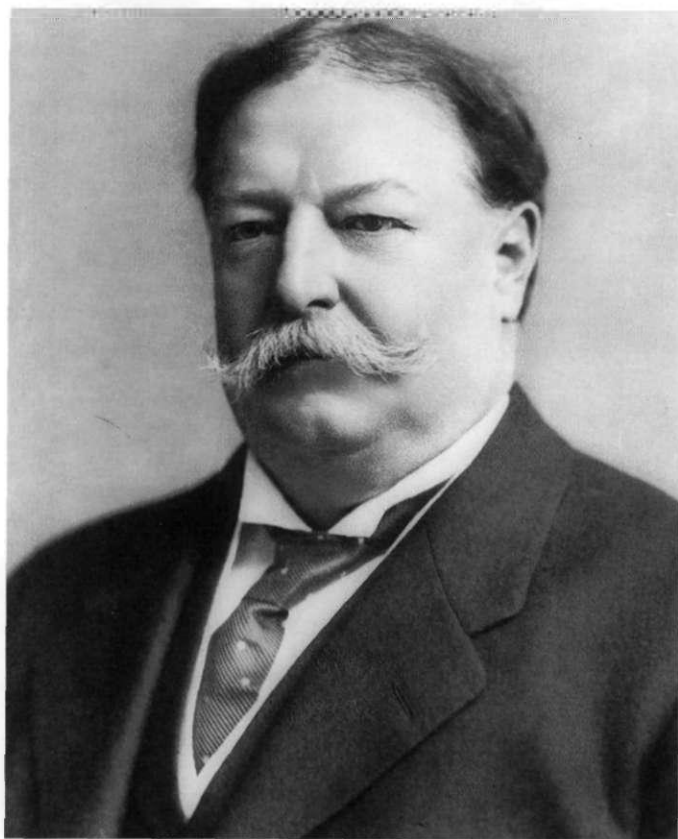
While fighting was under way in Cuba, another American expeditionary force had invaded the Philippines. Hardly had they defeated the Spanish than an insurgency broke out, with Filipino guerrillas

taking up arms against U.S. forces. Some insurgents proved fanatical but not particularly skilled with firearms, while others, especially on the northern islands, demonstrated excellent marksmanship. One such Filipino sharpshooter's shot scored the insurgents' greatest coup on 19 December 1899.

That morning, a column of U.S. soldiers was advancing toward San Mateo, 15 miles northeast of Manila, accompanied by Major General Henry W. Lawton, the commander of American combat forces in the Philippines. A Civil War hero—he'd been awarded the Medal of Honor for leading an assault at Atlanta as a young captain—General Lawton had earned national recognition in 1886 as the man who captured Apache leader Geronimo. It was rumored that President McKinley soon would appoint Lawton chief of staff of the entire U.S. Army. That rainy morning, riding his mount, General Lawton wore a



Major General Henry W. Lawton, a Civil War Medal of Honor recipient and the highest-ranking officer killed in the Philippines, was shot by an insurgent sharpshooter.



Future U.S. president Howard Taft narrowly escaped an insurgent sharpshooter's bullet in the Philippines.

yellow raincoat and white helmet to ward off the rain—as conspicuous as could be. Invisible in a nearby tree, a Filipino sharpshooter spotted the distinguished rider, took aim, and fired, striking General Lawton center chest. “I am shot,” he gasped, fell from his horse, and died. Return fire killed the sharpshooter, whose commander, ironically it turns out, was named Geronimo.

A year later another Filipino sharpshooter came within a hair of outdoing that shot. Howard W. Taft, appointed by President Roosevelt as the U.S. Governor-General to the Philippines, was visiting Batangas City, 60 miles south of Manila. Arriving at the Pastor House on Tirona Street, he paused at the front door as a hidden gunman fired a long-range shot that narrowly missed, hitting the door. Uninjured, Taft went on to be the 27th U.S. president, succeeding Roosevelt. And 100 years later, that sniper's bullet reportedly is still imbedded in the door.

BOER WAR SHARPSHOOTING

Smokeless powder cartridges and Mauser rifles were equally troublesome for British and Australian military forces in southern Africa during the Boer War. The Boers—Dutch and German settlers who resisted Britain's annexation of their colonies—had imported some 37,000 German Mausers just before hostilities erupted in 1899. These African frontiersmen, a

Sharpshooting on the Border

Apache raiders, Mexican revolutionaries, and ordinary banditos swirled along the United States' southern border from the 1870s through World War I, generating instances of sharpshooting.

Repeated expeditions attempted to track down Apache raiders Geronimo and Victorio; in the former case, Geronimo was brought back alive from Mexico by U.S. forces. In the latter case, the Mexican army used Tarahumara Indian scouts to pursue and corner Victorio at Tres Castillos in the state of Chihuahua in October 1880. Victorio, who had vowed to fight to the death, got his way; he was killed by one well-placed shot fired by sharpshooter Mauricio Corredor. Afterward, the Mexican government presented Corredor with a custom, silver-inlaid .50-caliber Sharps rifle for his achievement.

Corredor used that same Sharps rifle, it's believed, six years later to place a shot that brought disrepute to himself and his government. On 11 January 1886, a body of Apache scouts led by U.S. Army Captain Emmet Crawford was pursuing Geronimo when a Mexican army force approached them. To prevent an accidental engagement, Captain Crawford stood atop a rock waving a white handkerchief and shouting, "*Soldados Americanos!*" (American soldiers). The same Mauricio Corredor took careful aim and shot Crawford through the head, instantly killing him. In his official report, eyewitness Lieutenant Marion Maus wrote, "There can be no mistake. These men knew they were firing at American soldiers at this time." Return fire from the Americans, which included the famous gunfighter Tom Horn, killed four Mexicans, including sharpshooter Corredor.

Intermittent clashes continued along the border, especially with such revolutionaries as Pancho Villa who often operated as ordinary banditos. On 9 March 1916, Villa raided Columbus, New Mexico, killing 18 American citizens and instigating a U.S. military expedition into Mexico. A fellow firearms instructor with whom I worked at Arizona's Gunsite Training Center, Eric Olds made me aware of a noteworthy rifle engagement during that campaign. Captain Aubrey Lippincott of the 13th U.S. Cavalry, renowned as "one of the best rifle shots in our army," detected a numerically superior force of armed followers of Venustiano Carranza observing his unit's position at Santa Cruz de Villegas. Several sat on horses, their apparent leaders. Lippincott's commander, Major Frank Tompkins, later wrote:



Apache raiders and Mexican banditos roamed America's southern borders into the early 20th century.

"[Lippincott] estimated the distance at 800 yards (80 yards short of half a mile), set his sights accordingly, estimated the direction and force of the wind, took careful note of temperature and atmospheric conditions, and set his windage to correspond, took careful aim at one of the mounted men and fired. The shot evidently hit the bulls-eye for the man fell out of his saddle. . . . The Mexicans must have concluded that that kind of shooting was too good for them so they fell back and sent in a note under a flag of truce . . ."

The largely uneventful American expedition soon withdrew, and national attention shifted to Europe and World War I. The Mexican border, however, continued to be a scene of violence and even sharpshooting across the Rio Grande. On 15 June 1919, one or more Villa sharpshooters fired across the river into the perimeter of the 82nd Field Artillery Regiment at El Paso, Texas. Two bullets hit American soldiers, killing Private Sam Tusco and severely wounding Private Burchard Casey. In retaliation, the artillerymen fired 64 rounds into the Juarez Racetrack, which was thought to house Villas' gunmen, and eventually some two dozen Villa followers were killed.

The 82nd Field Artillery Regiment's unit crest incorporates this incident, with a stylized bullet imposed over a wavy band that symbolizes the Rio Grande—the only U.S. Army crest inspired by a sniping engagement.

hearty breed raised in remote areas and accustomed to big-game hunting, proved a most difficult and resourceful foe.

One Boer trick was to carefully measure distances in open areas and then mark them with painted rocks, with the markings not visible to approaching troops. Carefully hidden Boer sharpshooters could thus engage enemy troops with considerable accuracy, while the British and Aussies had trouble even determining where the fire originated.

Boer marksmanship was well demonstrated during the 217-day siege of Mafeking. "If so much as a finger be shown above the top of the sandbags," reported a British journalist, "there is every likelihood of its being perforated by a Mauser bullet."

The British, too, could employ tricks. On St. Patrick's Day 1900, surrounded British soldiers at Mafeking sang drinking songs accompanied by a concertina; when a dozen Boers lifted their heads to see what was happening, British sharpshooters opened fire, knocking down several curious but dead foes.

It was in this time frame that Australia lost its first soldier ever in combat, Trooper Victor Stanley Jones. A mem-



Boers often marked distances on specially placed rocks. This Aussie is shot at an exact range, never noticing the lethal "X" beside him. (Original art by Tami Anderson.)

America's Greatest Scout

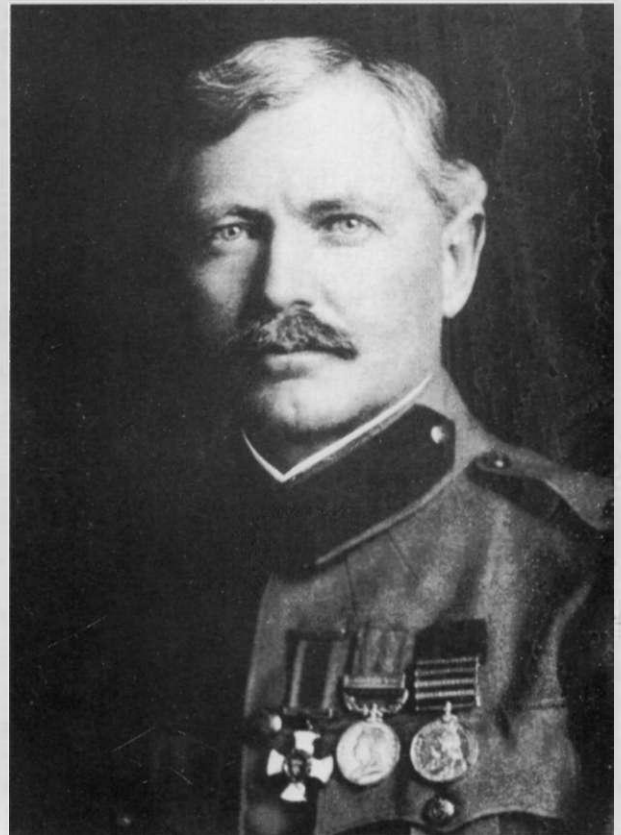
Superlatives can hardly describe Frederick Russell Burnham, little known today but undoubtedly the greatest combat scout America ever produced. As a youngster, he narrowly survived the 1862 Great Sioux Uprising near New Ulm, Minnesota, which perhaps explains his lifelong fascination with Indian skills and fieldcraft. Later, as a teenager in California, he befriended Native Americans who taught him tracking and scouting. So well did he absorb their knowledge that he scouted Apaches for the U.S. Army at age 14. Burnham went on to be a cowboy, buffalo hunter, armed guard on stagecoaches, prospector, deputy sheriff, and, when needed, an Army scout.

By the 1890s, the adventurous American moved to Africa to be employed by the British South Africa Company. So keen were his tracking skills that natives called him "He Who Sees in the Dark." Burnham operated alone or in small parties during the Matabele Wars, earning fame for infiltrating a Matabele camp at night and killing their leader, effectively ending the conflict with one shot. Although covered by glory and promoted to major in the British Army, he remained a quiet and humble man.

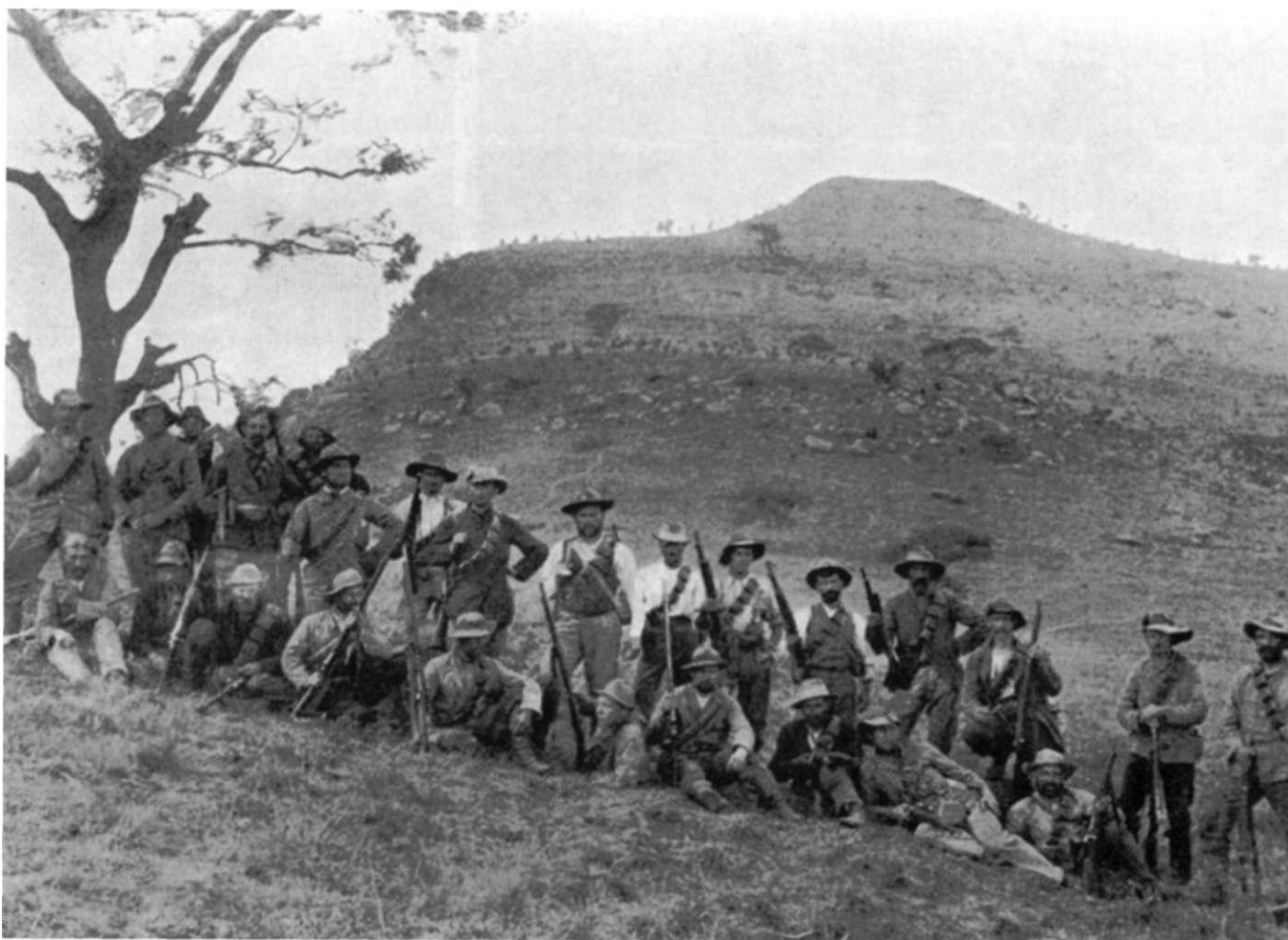
When Lord Robert Baden-Powell was appointed chief of British intelligence for the Boer War, he summoned Burnham from Alaska, where he was prospecting for gold, and named him chief of scouts. Major Burnham performed marvelously throughout the war and was personally decorated by King Edward VII, while he and Baden-Powell became lifelong friends. The commander of British forces in South Africa, Field Marshal Lord Roberts, wrote to Burnham: "I doubt if any other man in the force could have successfully carried out the thrilling enterprises in which from time to time you have been engaged, demanding as they did the training of a lifetime, combined with exceptional courage, caution, and powers of endurance."

Lord Baden-Powell so admired Burnham's outdoor skills that it inspired him to found an international movement to teach similar skills to young boys all over the world—they were called Boy Scouts. In 1936, not long before he passed away, the Boy Scouts of America presented Burnham its highest decoration, the Silver Buffalo Award.

Burnham authored two volumes that I recommend to modern scouts and snipers: *Scouting on Two Continents* and *Taking Chances*. In addition to scouting, he also discovered treasures in Africa and Central America and died a wealthy man—but those are other stories from this adventurer's amazing life.



Major Frederick Russell Burnham, the greatest combat scout America ever produced.



African Boer riflemen proudly display their modern Mauser bolt-action rifles.

ber of a scouting party, Jones was shot and killed at long range by a Boer sharpshooter at Sunnyside Farm in the Transvaal.

Boer snipers also demonstrated considerable success at shooting high-ranking British officers. On 31 October 1901, a Boer rifleman shot and killed Colonel George Elliot Benson, an artillery commander, at Brakenlaagte. A statue that memorializes Benson, erected in Northumberland, Britain, ironically depicts him holding field glasses—the reflection of which enabled a Boer sharpshooter to spot him.

The highest-ranking British officer to fall to a sharpshooter died in a lopsided engagement at Spion Kop, where many men were killed by long-range rifle fire. After making a night attack, Major General Edward Woodgate had his troops dig in along a ridgeline, only to find at dawn that Boer riflemen on overlooking hills had clear shots right down the British trenches. It was a terrible slaugh-



British scouts employed many tricks, including camouflaging their horses as zebras.



The first Australian soldier ever to die in combat, Victor Stanley Jones, was killed by a Boer sharpshooter.



Focused on an approaching British column, this Boer sharpshooter is about to be surprised by a bayonet tip.

ter, with nearly 1,500 Commonwealth soldiers killed or wounded and General Woodgate shot dead by a sharpshooter's bullet through his head.

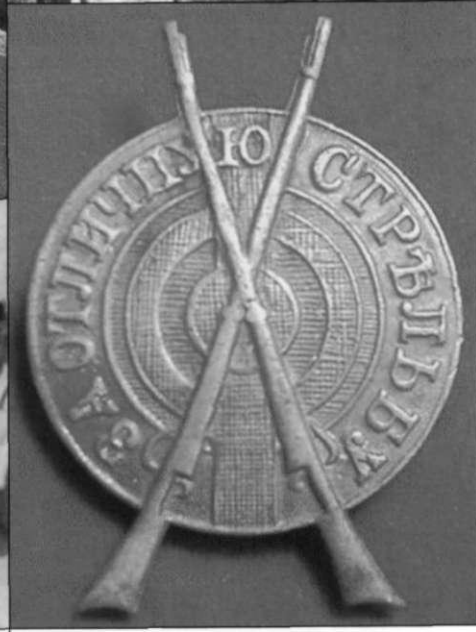
Although the British eventually fielded 250,000 troops, the most successful counter to the elusive Boers and their sharpshooters were small detachments of scouts and riflemen who could track, locate, and bring forces to bear upon them. Early in the war, a special unit of Canadian scouts made life difficult for the Boers. Led by Major Arthur "Gat" Howard, an American and formerly an officer with the Connecticut National Guard, their operations were disrupted in February 1901, when Major Howard was captured and summarily executed. Another scouting unit, nicknamed "Rimington's Tigers," employed African native guides, organized and trained by Major Mike Rimington. The war's most renowned individual scout was an American adventurer in British uniform, Major Frederick Russell Burnham (see "America's Greatest Scout," page 286).

The greatest British scouting advance during the war, however, came about when Lord Lovat recruited Scotland's most talented gamekeepers, hunters, and riflemen to form the legendary Lovat's Scouts. Their innovations included the scouting and sniping use of the ghillie suit, an elaborate camouflage robe worn by gamekeepers to catch poachers on Scotland's royal estates. Under Burnham's leadership as chief of scouts, Lovat's scout-snipers and similar units kept unrelenting pressure on the Boers, which, combined with a host of British programs and strategies, eventually ran the Boers into the ground. Hardly a dozen years later, Lovat's Scouts would again distinguish themselves, this time in the biggest war the world had ever seen.

PART

4

THE TWO WORLD WARS



TRUE SNIPING BEGINS: WORLD WAR I

THE GERMAN MONOPOLY

In the late summer of 1914, massive German armies invaded France, Holland, and Belgium, smashing their way westward and nearly seizing Paris. After repeated defeats and setbacks, at last the French and British armies held their ground at Ypres, Belgium, in October. On both sides troops began digging, and soon a continuous line of trenches cleaved the countryside from the northwest coast of Belgium 350 miles across France to the Swiss frontier. Reminiscent of the Civil War's protracted siege at Petersburg, the Great War had stalemated into fixed warfare, creating an ideal situation for wide-scale sniping.

And this time Kaiser Wilhelm's snipers held a decisive monopoly.

By the early 20th century, Imperial Germany was a world leader in most military technologies, especially optics; indeed, there were no better lenses or rifle scopes than those manufactured in Germany and Austria. It should have come as no surprise then that the Kaiser's innovative military leaders put optical sights atop that country's excellent Mauser rifles. The surprise, the British and French would learn to their bloody disadvantage, was the scale of it.

The U.S. ambassador to Germany from 1913 to 1917, James W. Gerard, had befriended many Germans who shared his love of big-game hunting, which led to a surprising discovery. "Going one day to a proof establishment to try a gun" just before the war, he reported, "I opened by mistake a

French and Belgian Snipers

The French and Belgian armies were as much taken by surprise as their British ally when Germany fielded masses of optically equipped snipers in World War I. Neither Belgium nor France entered the war with rifle scopes or trained snipers, though both countries had riflemen they called “sharpshooters.”

Operating at an optical disadvantage, they could not stand up to the technologically superior Germans and suffered accordingly. The Belgians never did match Germany’s sniping capability, and, although the French made an effort, it proved ineffective.

Desperate for any kind of rifle scope, the French army attempted to modify the optical sight off a 37mm gun, which simply did not work. Eventually a 3x scope was reverse-engineered from a captured German sniper scope, the Model 1916/17 Atelier de Puteaux, which achieved some adequacy—although it apparently was not fielded in sufficient numbers to have a significant impact. The Allied countersniper effort would have to look elsewhere if it hoped to prevail.



Belgian sharpshooters prepare to engage approaching Germans.



Despite lacking a rifle scope, a French sharpshooter fires at German troops.



His Lebel rifle mounting a 3x scope, a French sniper aims across no-man’s-land.



A German sniper very early in World War I, before the ubiquitous trench warfare began.



German troops entrenched in a French farmhouse. Note that the man on the left has a scoped rifle.



This German sniper recruiting poster emphasized marksmanship, but tactical knowledge, fieldcraft, and judgment were also important qualities.

door which led to a great room where thousands of German military rifles were being fitted with telescopes." Gerard immediately understood the significance, although he could do little more than nod and politely apologize for his intrusion.

Once war broke out, Ambassador Gerard learned more, writing that "the [German] Duke of Ratibor collected all these sporting rifles with telescopes and sent them to the front. These were of the same caliber as the military rifles and took the military cartridge, so they proved enormously useful for sniping purposes."

Combined, it was estimated, this put more than 20,000 scoped rifles in the hands of German snipers. Along a 350-mile front, this meant one scoped rifle for every 31 yards. By contrast, the French army had not one rifle scope of any kind, while the British Army had neither scopes nor snipers.

The Luckiest Sniper's Shot

The most decisive shot ever fired by a sharpshooter has to be Timothy Murphy's, fired at the Battle of Saratoga in 1777. The claim for the outright luckiest shot, however, goes to an unknown German sniper who took careful aim at a French bunker slit on 11 March 1915.

On that morning, French Field Marshal Michel-Joseph Maunoury, whose Army of Lorraine had saved Paris six months earlier, was visiting the front, escorted by a corps commander, Lieutenant General de Villaret. After a short briefing, Marshal Maunoury and Lieutenant General de Villaret descended into a heavily reinforced bunker to view the nearest German positions.

From the German trenches, a sniper noticed shadowy movements at a bunker slit, shifted his crosshair to the opening, and fired. His single bullet struck both Maunoury and Villaret, seriously wounding both senior commanders.

Field Marshal Maunoury, hit in the eye, would never return to active duty, dying eight years later. General de Villaret eventually recovered and commanded the French army.

The German sniper was apparently unaware that his lone bullet had struck down two French generals, and his one-shot achievement was never publicly attributed to anyone.



A German sniper's bullet ended the military career of French Field Marshal Michel-Joseph Maunoury and also wounded a three-star general.



Patiently awaiting a target, a German sniper with a scoped rifle surveils the facing trenches.



Above: A German sniper demonstrates how to steady an uphill shot. Note that he's firing a civilian sporting rifle, thousands of which reached the front.



Left: This amazing sequence shows Seaforth Highlanders posing in a trench for a photographer. Inset: As the photographer snaps a second image, however, an officer is shot and collapses (circled), a victim of a German sniper.



Sniping on the Eastern Front

Scant details of World War I Russian sniping exist, at least in any form that I could obtain. Partially this is because many records were lost in the tumultuous overthrow of Czar Nicholas II and the subsequent Russian Civil War. But equally it reflects the low status of ordinary soldiers (and snipers) in Czarist Russia, where enlisted ranks were filled with poorly trained peasants. Against the Kaiser's crack German forces, such an army, no matter how courageous, stood little chance. At the 1914 Battle of Tannenburg, the Russians suffered 100,000 casualties in a single day, while some 3.8 million Russians were killed or wounded in the war's first 10 months.

Still, the Russian army had a tradition of sharpshooters and scouts dating back at least to the Crimean War; the problem was that they were too few and ill equipped. Not only did the Russians lack rifle scopes, but the army itself nearly ran out of rifle ammunition late in 1914. The most historically significant Russian sharpshooter engagement I've come upon is the death, not of a senior German officer, but the 29 September 1915 killing of gifted German composer Rudi Stephan, who was serving on the eastern front.



A World War I Russian sharpshooter's badge.



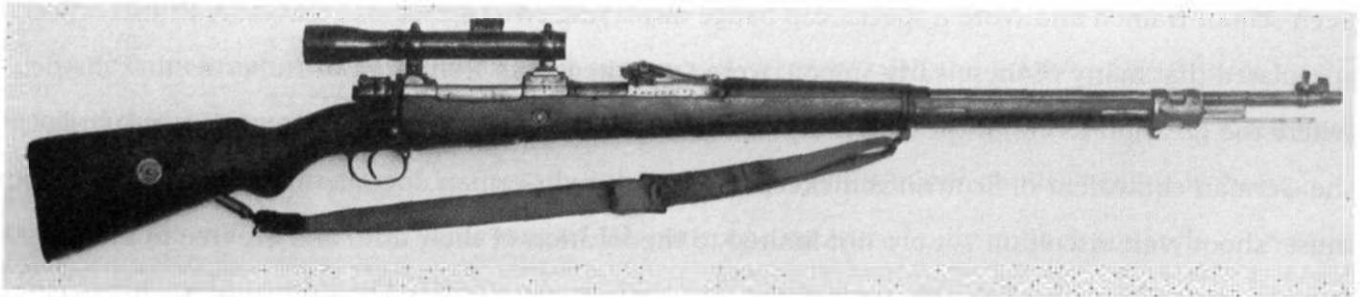
Prior to World War I, Russian scouts were considered, along with the Cossack cavalry, the elite of the Czar's army.

The German army did not assign much priority to eastern front sniping, focusing this

effort primarily in the west—with one major exception. On the eastern front's northern flank, snow and cold severely limited German operations, causing Berlin to secretly recruit 2,000 Finnish sharpshooters who, for purposes of cover, were designated the Royal Prussian 27th Jäger Battalion. Immune to the effects of winter, these Finns fought exceptionally; then, when the Russian Civil War spilled over to their homeland, they formed the nucleus of the Finnish army that fought off the Russian communists. These elite veterans not only were allowed the honor of using "Jäger" with their official postwar military ranks but, 20 years later, were the very regiment, division, and corps commanders who led the Finnish army in the 1940 Winter War—during which, again, they demonstrated their ability to prevail despite being terribly outnumbered.

GERMAN RIFLES AND SCOPES

Germany's World War I sniper was armed with the standard infantryman's Gewehr 98 Mauser bolt action, its only modification being a turned (or bent) bolt handle to allow clearance for a rifle scope. This rifle may have been a "standard" Gew 98, but that was a misnomer. Today we appreciate how accuracy is affected by barrel harmonics, the fit of certain operating parts, and trueness of bolt face and chamber, but this was not understood in 1914. Rather than understand why a rifle was accurate, the German army simply tested large numbers of them and then designated the most accurate rifles for sniper use, a concept called "selected for accuracy." This practice soon was followed by all armies. For



Imperial Germany's primary sniping rifle, the 7.92 x 57mm Mauser, fitted with a Gerard scope.



Austrian snipers used the Mannlicher Model 95, which, like the Mauser, was chambered in 7.92 x 57mm (shown here with a Luxor 3x scope).

ammunition, the German sniper fired ordinary 7.9 x 57mm military rounds or, beginning in 1915, the specially made SmK cartridge, a higher-quality round that allowed "precision shooting."

Due to manufacturing shortages, there was no standard German sniperscope, and quite a variety found their way atop rifles, everything from commercial Gerard scopes to military contract optics made by Fuess. Most often, these scopes yielded 3 or 4 power, which would be considered inadequate today but performed well along the western front, where trenches were only 100 to 300 yards apart.

Initially the British estimated that there were six properly armed *Scharfschützen* (snipers) per 100-man infantry company; then the French 11th Division interrogated a captured sniper and learned his company had 15 optically equipped sniper rifles. Further, they learned, many German snipers had been school-trained and wore a special cap badge displaying two crossed oak leaves. A British officer speculated that many of these early snipers were "recruited from Rominten or Hubertusstock districts, where the great preserves of the Kaiser lay and in which were a large percentage of Forest Guards," the German equivalent of Scottish gamekeepers. A captured German document explained that snipers must "shoot with discretion . . . are not limited to the location of their unit, and are free to move anywhere they can see a valuable target." German sentries were ordered to alert snipers whenever they noticed lucrative targets in the British or French trenches.

At first Allied officers discounted or belittled enemy sniper capabilities. A neutral American observer minimized the German sniper threat, concluding:

"The sniping art [has been] developed . . . amongst the Germans, and even at present they do not excel at it. . . . Generally the German sniper works alone, without an observer. The favorite position for snipers is in the trees in the summer and in the ruins of a house during the winter. There appear to be few in the front line trenches."

Only a month into the war, that perception was disputed by a Welsh officer, who recorded in his diary:

"C Company lost three men at one of their lookout posts. Poor fellows. If I am to be killed let it be in the heat and rush of the advance and not by a dirty sniper who awaits his chance for perhaps hours. In this case, it was ten snipers."

Actually, French and British soldiers were falling by the hundreds, possibly thousands, to German snipers. In the first week of fighting, Sergeant Robert Ramsey, 12th Battalion, Royal Irish Rifles, "inadvertently stood up straight to reload his rifle." Ramsey fell, shot dead by a sniper. Captain Guy

Shipway, a Boer War veteran, was shot and killed, the first Gloucester Regiment officer to die. Captain B.H. Selby of the 1st Battalion, Northumberland Fusiliers, too, was shot and killed, as were Captain G.R.K. Evatt and Lieutenant S.C. Opaque of the Middlesex Regiment. On 24 October, a sniper killed Lieutenant Colonel William Bannatyne, a battalion commander, at Ypres. Clearly, German snipers were focusing their efforts on leaders, especially officers. "To make any accurate estimate of how many victims the Hun snipers claimed at this period is naturally impossible," wrote a British officer, "but the blow they struck was a heavy one, and many of our finest soldiers met their deaths at their hands."

GERMAN TACTICS AND TECHNIQUES

Some snipers appeared to show off their accuracy. A sergeant with the Staffordshire Brigade reported that a German sniper's bullet hit his periscope "and the glass falling in small pieces filled my eyes." The same thing happened to Captain Robert Graves when a sniper's bullet "drilled it through, exactly center, at four hundred yards range." His periscope measured only an inch square!

A German Sniper's Humor

Despite their grim vocation, some German snipers maintained a sense of humor, as Sergeant Guy Empey learned when he escorted a captured sniper to his battalion headquarters. Empey engaged the English-speaking prisoner, Private Carl Schmidt of the 66th Bavarian Light Infantry, in conversation "to try and pump him for information as to the methods of German snipers who had been causing us trouble in the last few days.

"I broached the subject and he shut up like a clam. After a few minutes he very innocently said, 'German snipers get paid rewards for killing the British.'

"I eagerly asked, 'What are they?'

"He answered, 'For killing or wounding an English private, the sniper gets one mark. For killing or wounding an English officer he gets five marks, but if he kills a Red Cap or English General, the sniper gets twenty-one days tied to the wheel of a limber as punishment for his carelessness.'

"Then he paused, waiting for me to bite, I suppose.

"I bit all right and asked him why the sniper was punished for killing an English general. With a smile he replied, 'Well, you see, if all the English generals were killed, there would be no one left to make costly mistakes.'

"I shut him up, he was getting too fresh for a prisoner."



A German officer instructs trench warfare to a sniper.

Instead of demonstrating their marksmanship, however, this was a calculated German tactic: denying observation of no-man's-land, the ground between the trenches. For the next 18 months, due largely to their snipers' unblinking eyes, the German army would dominate no-man's-land.

Other tactics and techniques became apparent. Early in the war, some Germans exploited darkness to slip behind British lines and engage trenches from their vulnerable rear, which could prove suicidal for the shooter. A South African machine gunner, Sergeant Frank Marillier, recalled such an incident:

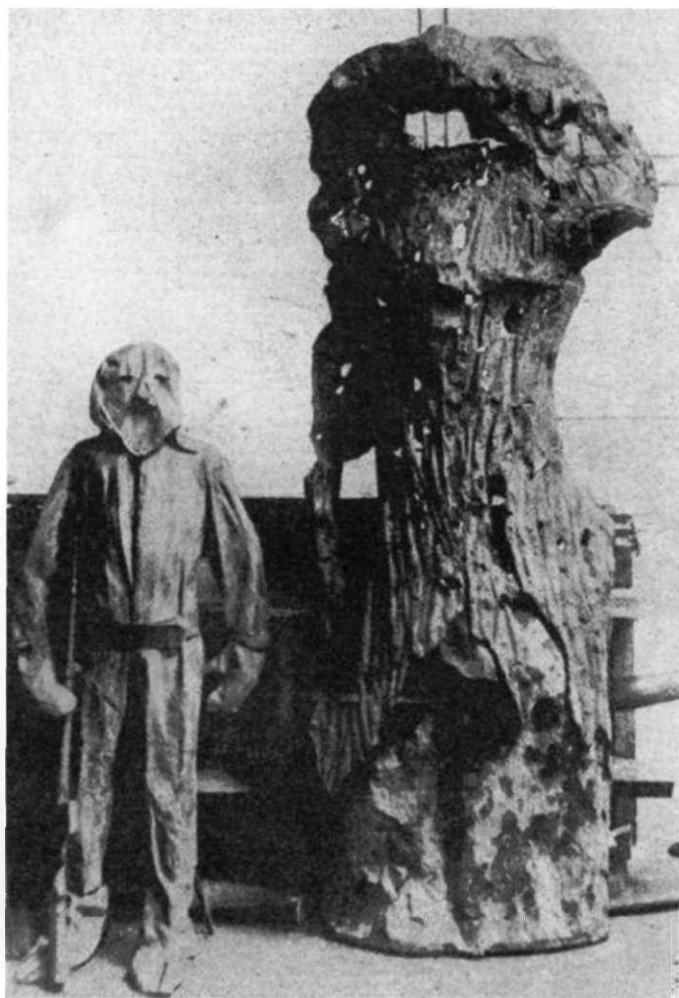


Daring his foes to fire, a German soldier raises his spiked helmet while a sniper (upper right) watches for any "takers."

"[O]ne bullet grazed the side of my face, near the eye. Another hit the stock. But the bullets were not coming from the direction our gun was facing. After our tenth comrade had been killed, one of our chaps thought he saw movement in a tree some distance to our rear. We gave the tree a burst, and out dropped a German sniper . . . [with] a telescope on his rifle. . . . I was indeed lucky not to have been his next victim."

Other snipers concealed themselves in elaborate firing positions, including dummy animals in no-man's-land. "We saw a dead cow in front of our trench," wrote Sergeant Sydney Norton of the North Staffords. "We fired a volley into it and the next day the sergeants went out and found a dead sniper inside it, so you can tell the antics of war craft they get up to." A Canadian infantryman, Sergeant Jack Winston, noticed a dead horse in no-man's-land that hadn't been there earlier. A courageous lieutenant waited for darkness and then crept out and captured the sniper inside.

German snipers also concealed themselves in cast-iron trees that expertly duplicated real trees in



A German sniper's camouflage "suit" and cast iron tree firing perch, captured by Allied forces.

no-man's-land, which were switched at night.

"These trees," wrote an Australian soldier describing British-made versions, "were such perfect imitations that a man could walk past within two feet of one and not realize it was a dummy—unless he tapped it."

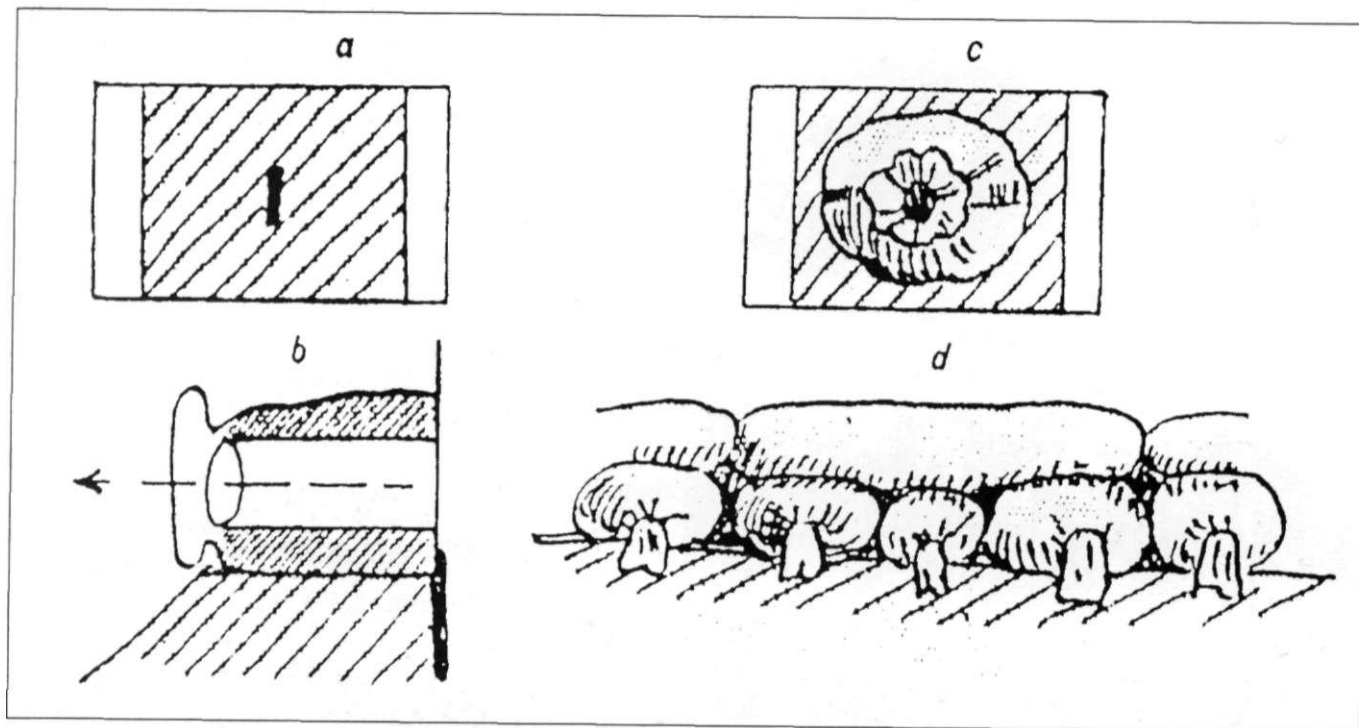
Most sniper positions were simpler, though no less ingenious. Burrowing through the earth below a German trench line, the sniper carved out a firing port just large enough for his scope and muzzle. This may have narrowed his field of fire, but it also made it difficult for Allied countersnipers to detect his position—especially so because he aimed laterally right or left rather than directly at a facing trench. Oftentimes the sniper reinforced his firing port with a heavy steel plate and, after dark, crept out to lay a hollowed bucket, boot, or old hat in front to disguise his loophole.



A British soldier demonstrates how a fake animal carcass can conceal a sniper.



Sheltered behind iron plates in no-man's-land, German snipers plink away at British positions.



A clever German position: a steel plate loop-hole (a) is installed in front of a sniper's position (b), has a fake sandbag glued to it (c), and appears identical to the other sandbags (d).

Darkness brought only limited respite from sniper fire. In addition to shooting beneath parachute flares, German snipers accurately fired into Allied positions using a "fixed rifle." This device cradled a rifle in an improvised machine rest that was aimed in daylight at a distant spot where troops were likely to move or congregate after dark. After sundown, the German fired shots that often struck soldiers who'd mistakenly thought that, since they couldn't be seen, they couldn't be shot. Along with

its physical effect, the fixed rifle's psychological effect took a toll, with, in one case, several fixed rifles firing one shot every two minutes into a steel plate above a British trench. "This damnable and maddening irritation went on day and night," wrote Frank Watson in his diary, "like the old torture of the regular drop of water on the victim's head."

When a sniping opportunity arose, the Germans were quick to exploit it. Heavy artillery barrages often collapsed sections of British trenches, which drew snipers like vultures to pick off dazed soldiers digging themselves out or scrambling to rebuild the parapet. Wounded men in no-man's-land became sniper's bait, with death to anyone who attempted to rescue a comrade.

During attacks, German snipers often played a decisive role as the front lines see-sawed back

and forth. For instance, when the Germans assaulted, snipers prevented the defenders from manning their parapets until the attackers were on them. And when the British or French attacked, the snipers concentrated their efforts against officers and sergeants, leaving the junior soldiers leaderless in the intersecting fire of machine guns in no-man's-land.



German snipers (and machine gunners) often wore sheet steel body armor. It offered little protection.



The irregularity of German trenches, such as this one, made it very difficult to spot snipers.



British rugby star Ronald Poulton (center) was among the many victims of German snipers in early 1915.

The dismal winter of 1914–15 eventually yielded to spring, but much of that year found German snipers still holding hostage the western front. England's greatest rugby star, Ronald Poulton, captain of the national team in 1914, was shot dead by a German sniper. William G.C. Gladstone, grandson of the great prime minister and himself a Member of Parliament, was felled by a sniper in April. On 13 May, the Honorable Percy Charles Evans-Freke, lieutenant colonel of the Leicestershire Yeomanry, was killed by a sniper. Brigadier General B.C. Nugent was a sniper victim only a few days later. Lieutenant H. Ommundsen, the most accomplished rifle champion of the British NRA—winner of the 1901 King's Prize at Bisley—fatally found himself in a sniper's crosshair. "I cannot evacuate my critically wounded or bury my dead on account of snipers," reported the commander of the 3rd South African Regiment. "I am the only one left of my gun team," wrote Sergeant Frank Marillier, adding, "enemy snipers seem to be everywhere."

Lieutenant General E.A.H. Alderson warned his arriving Canadian soldiers that "the individual

Monty's Close Call

Field Marshal Sir Bernard Montgomery, Britain's highly acclaimed European commander at the close of World War II, was but a junior lieutenant on 13 October 1916 when he materialized in a German sniper's scope at Meteren, France. Seriously wounded, Lieutenant Montgomery fell in the open and lay still, in hopes he would not be shot again. "But a soldier ran to me and began to put a field dressing on my wound," he recounted in his memoirs. "He was shot through the head by a sniper and collapsed on top of me."

Despite lying still, the future field marshal became the sniper's target. "The sniper continued to fire at us and I got a second wound in the knee," he wrote. The lifeless soldier atop him, who'd died trying to save him, was shot over and over and "received many bullets intended for me."

There was nothing more for Monty's comrades to do but hope and wait for darkness. All day he lay there, hour after hour, until finally a party of stretcher bearers

came for him that night. After such an ordeal the doctors did not think he would live, and a grave was dug for him. But somehow, despite his loss of blood, multiple wounds, and hours of dehydration, Lieutenant Montgomery pulled through. The rest is history.



Field Marshal Sir Bernard Montgomery was twice wounded by a German sniper in 1916.

shots they employ as snipers shoot straight, and, screened from observation behind the lines, are always watching. If you put your head over the parapet without orders they will hit that head." Major H. Hesketh-Prichard, who later trained and led British snipers, observed, "In early 1915 we lost eighteen men in a single battalion in a single day to enemy snipers." Multiply those losses by the number of battalions on the front and the terrible effect is clear: many hundreds of men were dying each day.

When a colonel of the King's Royal Rifles raised a periscope in mid-1915, it was shot instantly, causing him to tell Major F. Crum, "We mustn't let them have it all their own way." Crum agreed but noted, "Neither he nor I had any clear idea how the thing was to be stopped."

COUNTERING THE GERMAN SNIPERS

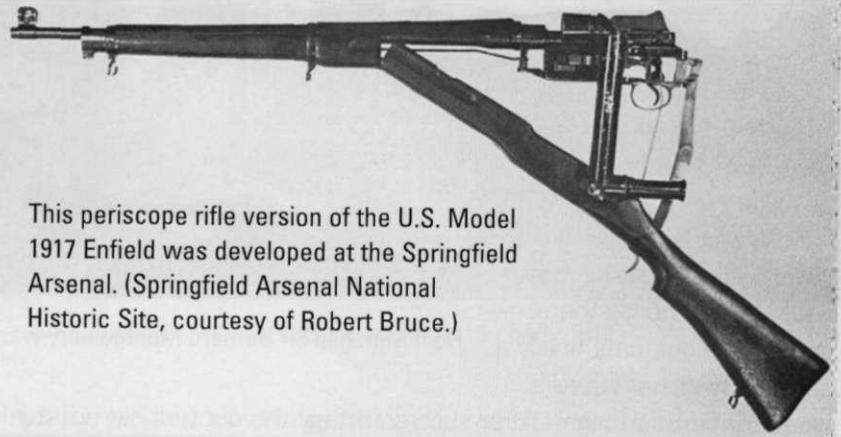
Defensive measures were implemented as best they could be. When German artillery collapsed a section of trench, engineers waited until canvas screens were erected before they began repairs. To reduce British officer casualties, their tunics were modified to resemble enlisted men's uniforms, and some officers began carrying rifles. For the French this was quite a change—their officers had begun the war wearing red trousers! And infantry companies perfected the “mad-minute” drill, with the

Periscope Rifles

Soon after protracted trench warfare began, accurate German sniper fire made it suicidal in some trench lines even to peek over the parapet, much less to lift a head to aim a rifle. Necessity eventually put periscopes together with rifles and handcrafted cradles so that friendly snipers and riflemen could fire over the parapet without exposing themselves. As cited in Chapter 6, the earliest such rifle I've discovered was a Union device captured by the 24th South Carolina Volunteers at Marietta, Georgia, in June 1864.

At various times called “trench rifles” or “skeleton rifles,” the World War I versions were fired using a rod or lever attached to the trigger. Most were locally fabricated without a standard design, although, as shown, the U.S. Army's Springfield Arsenal built a more elaborate version for the Model 1917 rifle.

None of these periscope rifles was fitted with an optical sight, limiting their fire to suppressing enemy snipers rather than precisely picking them off.



This periscope rifle version of the U.S. Model 1917 Enfield was developed at the Springfield Arsenal. (Springfield Arsenal National Historic Site, courtesy of Robert Bruce.)



An Australian soldier fires a periscope rifle, while an observer watches through a periscope.

No Mercy for *Franc-Tireurs*

Literally translated, *franc-tireur* means "free shooter," a term applied to Belgian civilians who sniped at German occupation troops. Their lack of uniforms and their independence from a chain of command put franc-tireurs outside the Geneva Convention. They considered themselves patriots, but legally they were terrorists and subject to summary execution.

"I know how it felt to be fired on from behind by snipers," said an angry soldier with the German 113th Infantry Regiment, "and the rage into which the soldiers were driven when they saw their comrades killed right and left by men who claimed for themselves to be treated as 'non-combatants.'" German occupation commanders, however, practiced vengeance, not justice, and struck back disproportionately against civilians. In Louvain, Belgium, a neutral American observer reported that some 15 civilians had been executed and others seized as hostages, with the German commander announcing:

"Every citizen found with a weapon in his possession or in his house would be immediately shot. Every person in a house from which a shot was fired would be shot. And every house from which a shot was fired would be burned."

In Louvain, alone, the Germans eventually shot 248 civilians. Such heavy-handedness transformed would-be sympathizers against the Germans and brought international condemnation. But the Germans were not the only ones who had to deal with franc-tireurs.

Captain H.W. McBride, an American volunteer serving in the Canadian Army, witnessed a pro-German Dutch civilian snipe at British troops from behind their lines. Looking through his rifle scope, McBride saw the man conceal his rifle and slink away—but not fast enough. Drawing on his sniping skills, McBride shot him at great range but, unsure at the legality of having killed a temporarily "unarmed" civilian, let his body lie all day where it fell. After dark he retrieved the man's rifle, searched his body—and then thought it wiser not to say a thing. "During succeeding days there were numerous instances of such murderous sniping behind our lines," he later wrote, "and several of the culprits were caught and executed, *toute de suite*."



A freelance civilian sniper, or *franc-tireur*, back-shoots a German soldier in Belgium.

Another American volunteer, Sergeant William Robinson, saw a 14-year-old Belgian boy captured with a German rifle and ammunition who confessed to sniping at British officers. For every officer he shot, the youthful franc-tireur said, the Germans paid him six francs (\$1.20) and thus far he'd earned nearly \$25."

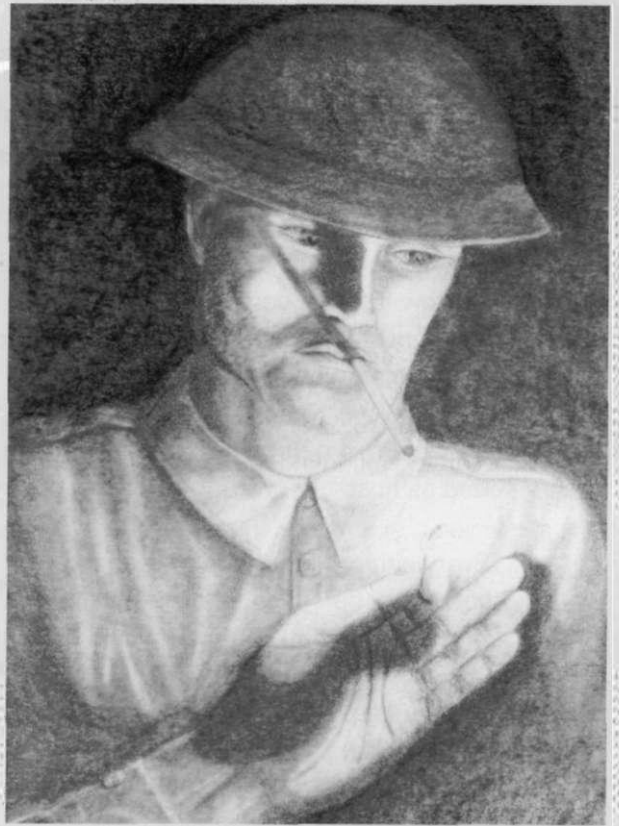
He was taken to the rear and shot at once," Robinson reported without a tinge of sympathy.

Three on a Match

Fighting in the dreary trenches of World War I—where a man might die unexpectedly from an errant shot, a falling shell, a biplane's strafing run—many soldiers understandably became superstitious. This included believing that the third man who lit his cigarette off a single match would die. This, however, was not entirely superstitious.

In the water-soaked trenches, British and American soldiers often shared their precious matches, which made them vulnerable to German snipers at night. When a match was struck and one man puffed, this drew the sniper's attention; by the time a second man had taken a light, the sniper had raised his rifle; and when the third man drew on it, the coal of his glowing cigarette drew the shot. Thus, the third man died.

Decades after World War I many smokers still deferred being the third on a match, having no idea where or why the practice had begun. It was only a superstition.



In World War I trenches, the third man on a match might have found himself in a sniper's crosshair. (Original art by Tami Anderson.)

entire unit jumping to the parapet, emptying their rifles in a flurry of shooting, and then leaping back down to cover, a practice that did as much to raise friendly morale as to intimidate enemy snipers.

The boldest counter I've come upon was accomplished by a British Territorial reserve unit, whose men had become fed up with German snipers using a farmhouse in no-man's-land for daylight sniping. Stealthily slipping into the empty house in the middle of the night, British engineers concealed hundreds of pounds of explosives and then returned to their lines, laying an electrical detonation wire behind them. When enemy snipers reoccupied the building at dawn and began firing, the British blew the building and its occupants sky-high.

Such defensive measures were important because they could be employed everywhere to reduce casualties. But complementary offensive action—pitting British snipers against German snipers—was the only way to achieve victory in this wartime sideshow.

The Heroine of Loos

Among the many great acts of courage on the western front, few so captured the public's imagination as that of a 17-year-old French girl, Emilienne Moreau. Soft-spoken, with big eyes and a Madonna-like smile, young Moreau hardly seemed the kind to have confronted terror in the guise of German snipers, but she did magnificently.

In September 1915, after German troops seized the village of Loos, fighting raged around her home, with British forces attempting to retake the town. Emilienne and her mother took in several wounded Scottish Highlanders, doing their best to nurse their injuries. A period article reports, "Her gentle words and sweet smile were like a tonic to the stricken soldiers." Suddenly the battle reversed, and German troops arrived outside the family's house. An enemy soldier burst in, raising his rifle to bayonet the wounded soldiers. A disabled Scottish officer tried to pull his revolver but could not raise his arm—instantly, the French girl seized his gun and shot the German. Momentarily another bayonet-wielder arrived, and again Emilienne fired, killing him. Then outside a pair of German snipers began methodically shooting wounded men and robbing their bodies. From a shattered window, she watched the two snipers approaching her house as they continued their slaughter, which she vowed to stop. Waiting to the last second, until they were at the window, she fired two shots, each hitting its mark and, putting an end to their murder.

Miraculously, at that moment a British counterattack swept through, liberating the street and securing the wounded men. Learning what the slight girl had done, a crowd of British soldiers gathered outside to cheer her, and later the government of France presented the "Heroine of Loos" with the French Military Cross, to which was added the British Military Medal, the Royal Red Cross, and the Order of St. John of Jerusalem.

Emilienne Moreau's incredible courage did not stop there, however. Twenty-five years later, after Nazi Germany's forces overran France, she again rose to the danger, risking her life as a member of the Resistance. Serving with the British-supported Brutus Network, she spied on enemy activities and helped evacuate downed airmen. After Liberation Day, she was awarded the French Order of the Liberation, her country's second-highest decoration. As at her 1916 award ceremony, the crowds that day in 1945 had to have shouted, "*Viva Emilienne Moreau!*"



Emilienne Moreau, a 17-year-old French girl, risked her life to protect wounded soldiers from murderous enemy snipers.

South Africa's Finest

World War I's most unique sniping unit, raised during the hard-pressed months of 1915, has to be Sir Abe Bailey's South African Sharpshooters. Upon learning that the British Army was suffering terribly to German snipers, Sir Abe—one of the world's wealthiest men—offered to recruit, train, arm, and finance a countersniper unit from his native South Africa, to which the British and South African governments agreed.

Himself an accomplished athlete and hunter, Sir Abe recruited 18 South African marksmen, fitted them out with scoped rifles, financed their training and travel to the western front, and then paid their wartime salaries. Led by Lieutenant Neville Methven and renowned as "Sir Abe Bailey's South African Sharpshooters," the crack riflemen soon demonstrated their skills against German snipers. Supporting various British units, the South Africans saw action throughout the war and were eventually accredited with killing more than 3,000 enemy snipers and soldiers. Lieutenant Neville



Sir Abe Bailey's South African Sharpshooters, privately recruited and financed, fought with distinction on the western front. (South African National Museum of Military History.)

Methven, awarded the Military Cross, reportedly accounted for more than 100 Germans alone. This was not without cost, however; of the 18 South Africans who volunteered, only six survived the war.

BRITISH SNIPERS STRIKE BACK

British countersniping began as a modest, improvised effort, initiated by individual soldiers and officers. Lieutenant Graham Seton-Hutchinson obtained two rifle scopes from "a patriotic gunsmith in Edinburgh" and began sniping. "During that first memorable day," he reported, "I bagged seven heads; and from what I observed I believe one to have been that of a senior officer." Ronald Brakspear, an accomplished rifle competitor with the Henley Rifle Club, demonstrated his skills by shooting a German sniper. Lady Graham of Arran patriotically shipped a 5x scope to a British officer in France. Lieutenant L. Greener, nephew to the famous British gunmaker, took to France his own .280 Ross target rifle, fitted with a Zeiss prismatic scope. Eventually Greener and his rifle accounted for a confirmed

54 Germans. Major H. Hesketh-Prichard, who later trained hundreds of British snipers, went to war with several of his own scoped rifles. The Earl of Kingston likewise carried to France a custom Holland & Holland, single-shot rifle with a Voigtlander scope, which proved “an immense success.”

Using a scoped German hunting rifle taken off a dead sniper, Scottish soldiers killed four enemy in their first engagement. “In two days with one telescope rifle,” they wrote a Scottish newspaper, “twelve Germans were hit, while six other men sniping with open sights failed to get a hit.” Here was an important point: sniping success required quality optics, both rifle scopes and spotting scopes.



British Major H. Hesketh-Prichard—adventurer, journalist, and African hunter—almost single-handedly inaugurated the British sniper training program.



A British sniper's position in a French cornfield. Using spent cartridges he'd spelled “III [3] Huns” [killed], and in the dirt he'd written “June 3, 1915.”

On 11 March 1915, the commander of the 8th Canadian Infantry Battalion reported he'd reassigned the unit's powerful spotting scopes from the signal section to the infantry companies and had achieved immediate countersniping success, detecting three hidden German snipers. “None of these men could possibly have been discovered with the naked eye,” his official report stated, “and it is unlikely that they would have been discovered with ordinary field glasses.” The battalion commander urged that his report be widely disseminated, “as the telescopes have been so useful in ridding us of snipers.”

The lesson was well understood, with a British teaching pamphlet explaining, “It is absolutely essential that the use of the telescope be

Snipers and the Victoria Cross

Sniping figured into the award of several Great War Victoria Crosses, the British Army's highest decoration for valor, equal to the U.S. Medal of Honor.

From 200 yards away, keen-eyed **Private Thomas Alfred Jones** of the British Army's 1st Cheshire Regiment spotted a German sniper who'd just killed his best friend. Leaving cover to take on the sniper, he was undeterred when a bullet slammed into his helmet; another sniper bullet cut through his tunic and still Jones advanced. Then the cool-headed rifleman fired and killed the sniper. Two more snipers feigned surrender, waving a white flag while taking aim at the Cheshire soldier; but demonstrating great marksmanship, he fired, killing both, and then rushed to the trench where they'd fallen. His aggressive assault so startled the Germans in two adjacent bunkers that all raised their hands. "The Todger," as Jones was nicknamed, single-handedly took 120 prisoners that amazing morning of 25 September 1916, for which he was awarded the Victoria Cross.



Victoria Cross recipient Thomas Alfred Jones single-handedly killed three German snipers and captured 120 prisoners.

to infiltrate his unit positions, earning a Distinguished Conduct Medal, the award second to the Victoria Cross. Then, in July 1918, at Rossignol Wood, when several machine guns held up his unit advance, Travis single-handedly eliminated them and rushed the enemy trench, his bold action enabling his unit to seize

While clearing the village of Neuville, France, **Private Frank Lester**, 22, and six soldiers were trapped in a house. The only exit, the front door, was covered by a German sniper who would certainly kill the first man who attempted to leave. Not only did Lester volunteer to be first out, but also he vowed to eliminate the sniper—which he did, but at the cost of his own life. His was a posthumous award.

Private Thomas Barratt of the South Staffordshire Regiment, a scout-sniper, demonstrated great stalking and shooting skill on 27 July 1917. When his patrol was pinned down by several German snipers, alone he stalked forward, disposing of them. Another party of Germans attempted to cut off the Staffordshire men, but again Barratt took them on, "his accurate shooting causing many casualties and preventing the enemy advance." Returning to friendly lines, tragically, an artillery barrage caught Barratt above ground, killing him and making his a posthumous award.

Similar was the case of **Sergeant Richard Charles Travis**, a New Zealander serving with the Otago Infantry Regiment. A formally trained and assigned sniper, Sergeant Travis prevailed against enemy snipers on 15 September 1916, catching several who attempted

their objective. The next day, an incoming shell killed Sergeant Travis, one of New Zealand's greatest Great War soldiers and a posthumous Victoria Cross recipient.

Canada, too, had in its ranks a Victoria Cross winner who defeated German snipers. **Private Walter Leigh Rayfield** of the 7th Canadian Infantry Battalion shot dead a sniper who had his mates pinned and then rushed his trench, causing some 30 startled Germans to raise their hands. Additionally, the 36-year-old native of British Columbia bayoneted two enemy soldiers and captured another party of 10. Rayfield's Victoria Cross is displayed today at the Canadian War Museum in Ottawa.



British snipers look for a German sniper on the western front, 1916.

taught from the stalking of big game point of view. . . . With four good telescopes on every battalion front, very little can happen in the enemy line without our knowing of it." German snipers had binoculars of about 4x and operated singly; British snipers operated as a team, with one man spotting through a 25x or even 36x telescope. "It was the telescope against the fieldglass," wrote Hesketh-Prichard, "and the telescope won every time. In fact, in all the time I was in the trenches, I never saw a German telescope, whereas I saw hundreds and hundreds of pairs of field glasses."



Telescopes gave British snipers an optical advantage over the Germans, who only used binoculars. (Photo courtesy of Dwight Swift.)

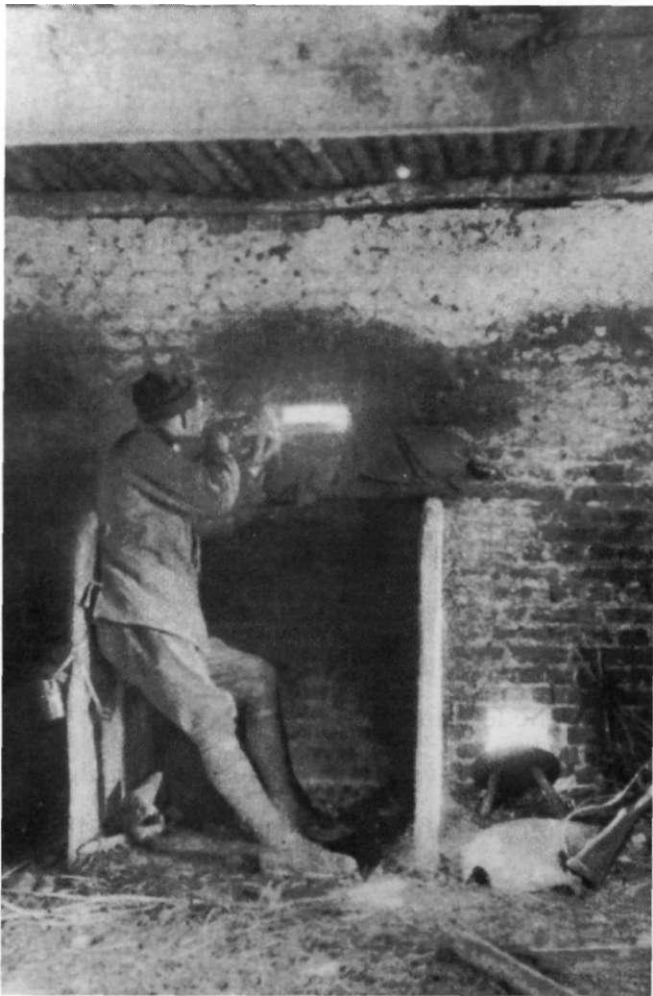


While a soldier watches with binoculars, a German sniper fires. Lacking spotting scopes and assigned spotters, German snipers operated at a disadvantage.

After visiting a British sniper unit, a neutral American observer wrote:

"When these sharpshooters are not firing, they are constantly watching the ground before them, examining with their glasses all such places as might serve for cover to a man, such as trees, clumps of bushes, a pile of hay, etc., or they are on the look-out for the flash of a discharge betraying the position of a 'sniper' on the other side."

Though the British were strongly motivated, their first attempts at sniping relied on untrained men who did their best with what they had. But difficult lessons could be learned only by a payment in blood. On 5 May 1915, Captain William Millner, "one of the best shots in the country," was



Above: Hidden in a French cellar, a British sniper watches for targets in the German trenches.



Top right: British snipers occupy a French hayloft overlooking distant German trenches.



Right: A British sniper at Salonika on the Macedonian front, 1916.



Sniper students observe a mechanical firing device at an Allied sniper school in France, 1916. (National Archives of Canada.)

wounded by an enemy sniper while attempting to snipe at the German trenches. On 2 June, Captain John Francis, commanding a battalion's scout-snipers, was shot dead by a German sniper while attempting to spot for his own men. Only one day later, his replacement, Lieutenant R.W. Laurence Edginton, was shot dead under identical circumstances, possibly by the same sniper. Lieutenant

Douglas L. Sarjeant of the Royal Warwickshire Regiment, a battalion sniping officer, likewise was seriously wounded while spotting for a sniper.

BRITISH SNIPER SCHOOLS AND ARMAMENT

With German snipers well trained and wizened by a year in combat, it was unrealistic and costly to expect British snipers to learn on the job. The solution was formal sniper instruction, set up in 1915 in France by then-Captain H. Hesketh-Prichard. A former journalist and adventurer—the *Daily Express* had sent him to South America in 1900 in search of the legendary “Iemisch,” the Bigfoot of that era—Hesketh-Prichard’s African hunting experience served him well in the countersniper fight. “It seems absurd for a fellow like me who has spent years after big game to let men go on being killed when I know perfectly well that I can put a stop to it,” he told his superiors. From nothing he developed the First Army School of Sniping, Observing, and Scouting, a 16-day course that produced long-range shooters who understood camouflage, tactics, and the tricks of countersniping. Hesketh-Prichard’s course remained “unofficial” until 24 November 1916, by which time similar schools had been founded in each of Britain’s five armies fighting in France.

In the desperate early days of countersniping, the British War Office rushed over Lattey Sight Sets, which consisted of two lenses, one mounted at a rifle’s bore and the other over the rear sight. In

Range Estimation in World War I

For the most part, World War I snipers employed the same range-estimation techniques as their great-grandfathers had done in the Crimean or American Civil War. All armies used variations of the "appearance of objects" technique, with an American manual teaching, for instance:

At 1,200 yards, infantry can be distinguished from cavalry.

At 1,000 yards, a line of men looks like a broad belt.

At 600 yards, the files of a squad can be counted.

At 400 yards, the movements of the arms and legs can be plainly seen.

The British Army recommended that its soldiers develop "a card, marked to scale by a previous experiment and held out at arm's length" to measure men and horses according to distances, much like the Holtzapffel stadium brass scale had been used 50 years earlier. Field artillery observer's glasses contained a mil scale for ranging targets and adjusting falling shells, but this scale required fairly large objects for measurement; it measured not mils but tens of mils, making it impractical for sniping.

The most innovative field-expedient technique, used by the British, had the soldier remove his rifle bolt and then look down the bore to measure a man's height on horseback or dismounted. As shown in the illustration, this yielded a reasonable range estimate.

The greatest technological innovation I've come upon was a step-style stadia line rangefinder built into the surprisingly innovative U.S. Model 1913 Warner & Swasey rifle scope's reticle, by which a 5-foot, 8-inch man's height was measured to yield a distance, a feature still used today in the Schmidt & Bender sniperscope.



350 YARDS



300 YARDS.



650 YARDS



550 YARDS



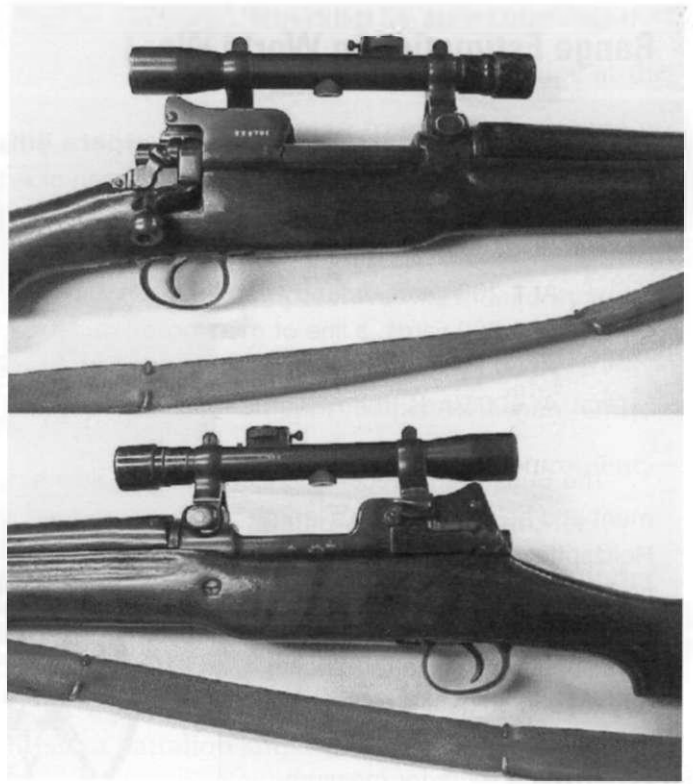
850 TO 900 YDS.



ABOUT 800 YDS

Measuring mounted and dismounted soldiers through his Lee-Enfield's peep sight, a British soldier could make reasonable range estimates.

essence, when properly aligned the Lattey Set became a tubeless scope offering about 2x magnification—a tiny degree better than nothing, but no solution for the life-and-death western front. By the time Hesketh-Prichard inaugurated his school, the British Army was fielding its own sniper rifle, a modified version of the .303-caliber P.14 Enfield, designated the P.14 (T) and P.14 (T) A. Unlike its Lee-Enfield cousin, which had a detachable box magazine, the P.14 used a Mauser-style action and an internal magazine that was loaded off stripper clips. To allow clearance for reloading, the scope was mounted left of the receiver, which complicated the shooter's cheek weld on the stock and required adjusting both elevation and windage for long-range shots. Further, this meant the British sniper



The favored British sniper rifle in World War I, the .303-caliber P.14 (T) A Enfield with a 3x Aldis scope.

needed a wider loophole than his German counterpart. With some practice, however, the sniper learned to hold his crosshair slightly left of his 100-yard zero impact point, so he could aim that same angular degree left at all distances and consistently have his bullet impact that degree to the right.

The primary British sniper scope was a 3x instrument manufactured by Aldis Brothers that incorporated a crude bullet drop compensator called a range drum, a feature well ahead of its time. Unfortunately, the range drum's imprecise increments did not allow exactness—one-quarter turn slid the elevation from 100 yards all the way to 400 yards—but the Aldis No. 3 scope was somewhat of a breakthrough.

British .303 ammunition inconsistency, with an allowable 80 feet per second muzzle velocity variance, contributed to the P.14's only moderate accuracy. Without considering the bullet's aerodynamic efficiency or uniformity of manufacture, already (according to my Sierra ballistic software) that 80 feet per second variable caused a shot-spread of 3/4 inch at 200 yards. This helps explain Hesketh-Prichard's remark that "a good shot can nearly always get a 3-inch group" at 100 yards, which isn't tight by today's sniping standards. Still, his students scored well at shooting drills, with "17 hits on a model of a human head at 430 yards in the first 21 shots. . . . In all they got 27 hits in 48 shots at the head, shoulder hits not counted."

BRITISH SNIPER ORGANIZATION AND TACTICS

By mid-1915, each British battalion was authorized a 19-man sniper section, with one officer, two noncommissioned officers, and 16 snipers organized into two-man teams. There was some variance between units, with commanders exceeding those numbers to meet local requirements. Major General W.T. Furse, commanding the 9th Scottish Division, decided that

“sniper(s) should be given a free hand. The qualities of resource and daring are essential to make a good sniper; more so than being a crack shot. There should be at least 50 snipers to each regiment.”

Britain's sniper volunteers ran the gamut, from intensely serious to jovial and devil-may-care. Describing a section of Scottish snipers, a wartime account said:

“Each [is] a man of distinct personality, yet collectively the deadliest unit on the whole battle line; each of a name known outside the division and of a skill which has brought the section success in the trenches and credit on the test rifle ranges behind the lines.”

“You must think I am awfully cold-blooded to be able to write about [shooting Germans],” Lieutenant Cecil Slack wrote home. “But really the only pleasure I get from it is the satisfaction of getting a good hit, knowing that there is always someone trying to do the same to me.”

Regardless of attitude, one quality successful snipers shared was quickness: getting off an accurate shot fast, at which the Germans were already quite good. American volunteer Guy Empey witnessed this when a comrade about to depart on leave decided to pop off a few rounds at the Germans. “He stuck his rifle over the top and fired two shots, when ‘crack’ went a bullet,” Empey later wrote, “and he tumbled off the step, fell into the mud at the bottom of the trench, and lay still in a huddled heap with a bullet hole in his forehead.”

Sniper instructor Captain Herbert McBride thought that “the rifleshot who cannot locate his target, get aligned on it, and let the shot off in less than ten seconds will prove a hopeless case . . . and our prospective sniper had better try to reach the point where he can aim and shoot within three seconds.” Hesketh-Prichard agreed, observing, “If you pack the rifle on a bed of sandbags so that the pointer of the telescopic sight rests just *under* the place where the Hun pops up, it is possible to aim and fire the rifle in from two to four seconds.”

The War of the Iron Plates

Early in World War I, many German snipers fired from behind the safety of portable iron plates. When a sniper dug in on a trench line, he incorporated this iron shield into his carefully camouflaged position; not only was he difficult to detect, but British .303-caliber bullets harmlessly bounced off his armor.

Rising to the challenge, the ever-inventive Major H. Hesketh-Prichard carried several captured iron plates to England and borrowed an assortment of heavy rifles—virtually elephant guns—from friends. Firing into the German plates from various distances, he was delighted to find they were composed of ordinary boilerplate, susceptible to magnum rifles and “the bullets from the .333 [Jeffery] as well as the elephant guns, pierced them like butter.”

Hesketh-Prichard’s favorite, the .333 Jeffery, was very popular for lions and Cape buffalo and, with careful shot placement, suitable even for elephants. Its 300-grain solid bul-



German snipers in body armor huddle behind iron plates. Note the periscope on the right.



Canadian troops captured this movable armored sniping hide in 1918. (National Archives of Canada.)

let—twice the weight of a .303’s—exited the muzzle at 2,200 feet per second and yielded 3,230 foot-pounds of energy. Quite a variety of heavy African big-game rifle cartridges reached the British trenches, including the .470 Nitro Express, whose 500-grain solids hit with an incredible 5,140 foot-pounds of energy.

Imagine the effect in the German lines when a bullet with sufficient energy to kill an elephant struck an iron plate, the *GONG!* resonating up and down the trenches, telling everyone within earshot that another “armored” sniper had met his fate. “They did their work exceedingly well,” Hesketh-Prichard said of these elephant guns, “and no doubt caused a great surprise to the enemy.”

“PLATE BUSTERS.” The massive .470 Nitro Express (center) and .375 H&H (left) dwarf a .303 cartridge.



How the Elusive Sniper Hides Himself from Foes



With a fern dressing and a face made up with yellow and black grease-paint this sniper was able to elude the enemy for many hours.

THE art of concealment in warfare is synonymous with the instinct of self-preservation. In no branch of the Service, however, is this so important as in sniping. Snipers, to surprise their quarry, have to advance to within visible distance of the foe and wait for hours in order to get a bull's-eye.

Thus it behoves them to be as wary as human wits can possibly make them. The photographs on this page give some idea of the ingenuity exercised by men under command of Colonel Ashley, who has given them a series of lessons in the art of concealment. The tree disguise is perhaps the most effective. The idea, of course, is to break up masses of light-showing material by sewing pieces of a different coloured cloth on to the uniform. The face is made up with grease-paint. Such a disguised sniper, ensconced among the thick foliage of a tree, would be rendered practically invisible.



Human water-weed. A scout who successfully hid in marshy land by disguising himself with bundles of rushes.

By 1916, British snipers had become experts at camouflage.

And engagement distances? In most cases the distance between trenches was 100 yards but occasionally could be as little as 50 or as much as 400 yards. McBride thought it "duck soup" to hit an exposed enemy soldier as far as 700 yards with a solid range estimate, while "beyond that, it's hardly worthwhile unless you have ample opportunities to sight in and conditions are in your favor."

Interestingly, these engagement distances did not differ much from those of the American Civil War, when sharpshooters fired quality black powder rifles like the Whitworth or Morgan James.

Individual camouflage varied, with many snipers mimicking the Lovat Scouts and crafting elabo-

The Legendary Lovat Scouts

With the western front sniping contest still very much undecided and sniping schools only starting to produce graduates, it was imperative to quickly boost sniper-observer numbers throughout the British Army. What was needed, senior officers concluded, was the Lovat Scouts.

A similar situation had existed in 1899, when Simon Joseph Fraser, Lord Lovat of Scotland, had grown frustrated hearing of the army's inability to scout against the Boers. Lord Lovat declared the Boer's "invisibility" to be nonsense, insisting that Scottish woodsmen, properly camouflaged and equipped with quality optics, could track and surveil the Boers. As Lovat conceived it, his unit would be the Rogers Rangers of Scotland and focused recruiting to attract gamekeepers, woodsmen, and shepherds.

Critics ridiculed Lovat's scheme, declaring he'd never find enough volunteers. Quite the contrary: for his 230 slots some 1,500 Scotsmen stepped forward, allowing Lovat to pick the finest candidates. He clothed them in unique gray-green uniforms, a shade his grandfather had favored called "Lovat Mixture," which blended into nearly any surroundings. The unit's finest camouflage, however, was a robe-like garment covered with many bits of dull burlap, which rendered its wearer nearly invisible. Used for generations to conceal gamekeepers while watching for poachers, in Scottish it was called a ghillie suit (man suit).

Once in South Africa, the Scouts sometimes donned their famous ghillie suits, but more often they rode horseback, often striping their ponies to resemble zebras. General Sir Ian Hamilton believed the Lovat



Officers of the legendary Lovat Scouts, 1916. Theirs were likely the finest scout-snipers on the western front. (Canadian National Archives.)

Scouts the only British troops who consistently saw the Boers before the Boers saw them, while the army commander, General Sir Archibald Hunter, was more elaborate in his praise, writing:

"In ones, twos and threes these men crept, climbed and spied, were absent for days at a time, but always came safely back with the truth discovered. . . . As scouts, spies, guides, on foot or pony, as individual marksmen, or as a collective body in the fighting line, they are a splendid band of Scotsmen, which is the highest compliment I can pay them."

After the Boer War, the Scouts were reorganized into ordinary infantry and then bicycle-borne troops defending Scotland's coastline. At last, in late 1915, when the Scout's natural skills—camouflage, observation, and sniping—became critical to the war effort, their bicycles disappeared and they deployed as scout-sniper detachments all across the western front to Macedonia and even to Gallipoli for the last two months of fighting there. In 1916, Lord Lovat formed new elements especially for sniping called "Lovat Scouts (Sharpshooters)." Organized as 21-man detachments, some nine groups of Lovat Sharpshooters were trained and attached to British divisions and corps across France by 1917. Eventually five more Sharpshooter groups were assigned to the western front.

Detailed accounts of their World War I achievements remain sketchy because the Scouts fought as small groups attached to large divisions or even corps, which rarely cited them in their histories. Still, a review of casualty lists and grave registrations verifies that the Lovat Scouts sharpshooters fought in France and Italy, as well as at Gallipoli, Salonika, and Kenya, where they supported the 1st and 2nd King's African Rifle Regiments.



A Lovat Scout-Sniper team observing and sketching German positions.

After World War I they were misused again, as anti-aircraft gunners, jeep drivers, or pack howitzer crewmen, losing not just their identity but also their critical skills as scout-sharpshooters. During World War II they guarded the Faroe Islands against a German invasion that never came. In 1944, again serving as scouts, they were shipped to Canada for extended ski training and finally arrived in Italy late in the war to carry out operations behind German lines.

Though these Scotsmen's achievements have slipped into the pages of history, modern snipers commemorate the Lovat Scouts' contribution whenever they don ghillie suits, the Scottish term being used worldwide to describe today's elaborate camouflage suit.

rate “sniper robes” or ghillie suits. Even the enemy took up this practice, according to McBride, with some German “turnip-topped robed snipers who dressed up to resemble their surroundings.”

Positional camouflage often became more important, since the snipers were firing from well-established trench lines and any telltale sign (such as a conspicuous loophole) alerted the enemy and might draw severe counterfire. At times this was minimized by maintaining a string of firing positions and limiting the use of any particular one. Loopholes were cleverly camouflaged and usually covered with painted gauze to reflect light and blend in with surroundings.

Firing from a parapet verged on suicide, since British trench lines were neatly maintained with sandbags and timbers squared as if in formation, leaving the shooter so blatantly silhouetted that



A British soldier carries an elaborate dummy to draw fire so a nearby sniper can engage the exposed foe.

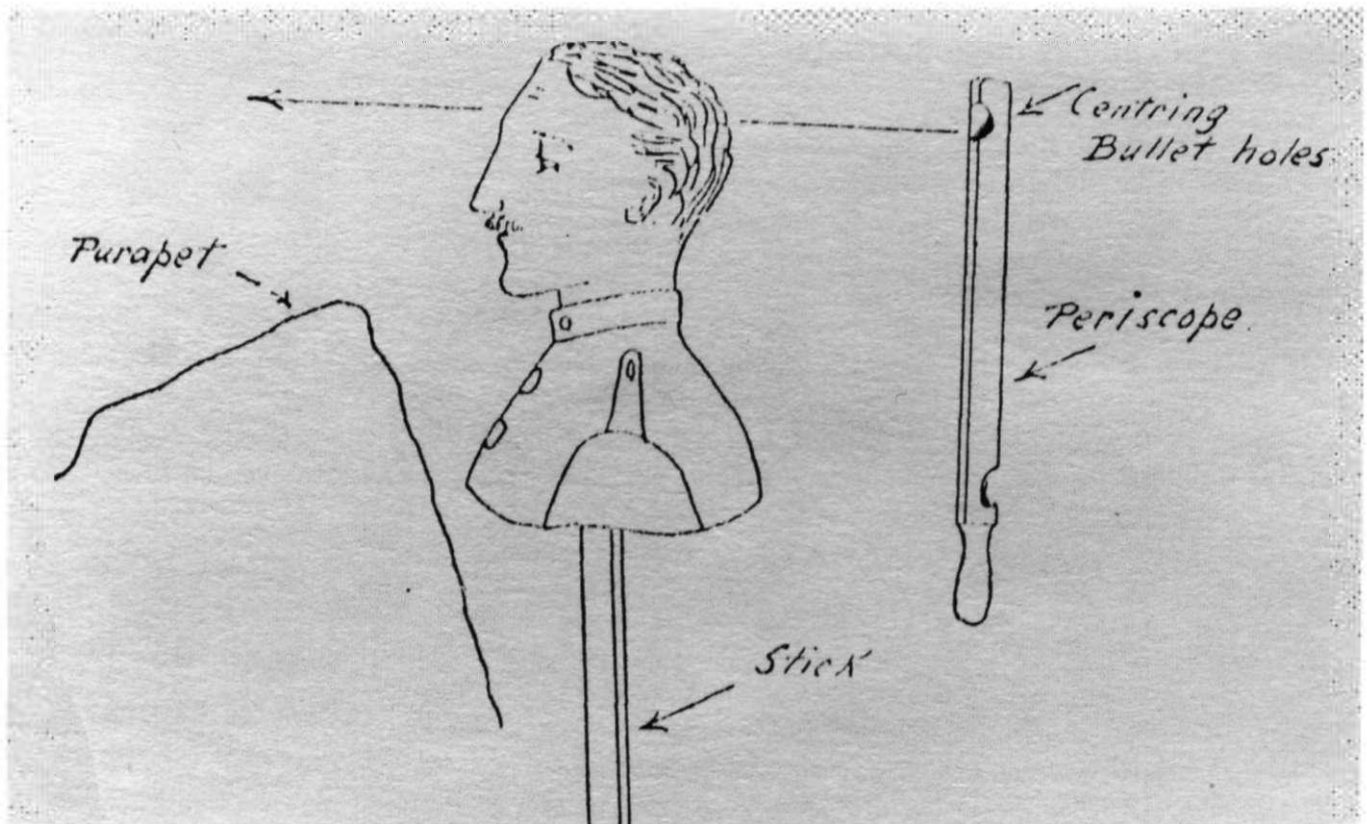
of cloth tied to barbed wire, which fluttered in the wind, almost hypnotically drew German observers' eyes away from their true positions.

Many tricks and techniques were employed to locate hidden German snipers. Some British soldiers attempted to triangulate an enemy sniper's

“a mouse could not move without being observed by the most moderate-sighted German sniper.” By contrast, Hesketh-Prichard observed, “the Germans had a splendid [irregular] parapet behind which a man could move and over which he could look with comparative impunity.”

Well-concealed sniper positions often were accompanied by slightly more apparent dummy positions so that enemy counterfire would mistakenly (and harmlessly) be drawn away.

Similarly, British snipers found that bits



Viewing the bullet path left in a papier-mâché head, it was possible to backtrack directly to a hidden German sniper.

position by back-azimuthing from the impact point of his bullets, while others tried to lure his fire with dummy heads, at which the British became quite adept. Royal Engineers and civilian artists at a special facility at Wimereux, France, manufactured amazingly lifelike papier-mâché heads—with some even appearing to smoke cigarettes! Mounted on a fixed wooden stand, the head was slowly raised until struck by an enemy sniper's bullet, which merely poked a hole through it. Then, a periscope was placed behind the head, and, peering carefully down the tube-like track left by the bullet, an observer could see directly back to the sniper's hidden lair. It worked amazingly well. In one case near Ploegsteert, Belgium, the 121st Infantry Brigade's snipers used such a head against a particularly deadly German sniper. As later recalled:

"The head was carefully exposed and the Hun immediately bit, but missed with his first shot; the second shot, however, hit the dummy head in the eye and came out behind. By looking through the holes with a periscope, the Boche was spotted in a tree and killed."

Captain McBride, a hard, pragmatic sniper, wasn't all that enthused by such contraptions. "The trouble with all that sort of stuff is that when the time and occasion arises to use the trick, the manikin is somewhere else—miles to the rear probably. It all works out very nicely at the sniping

Dead Poets and Wounded Artists

It is perhaps an oddity of the Great War, but a disproportionate number of British poets (and some notable artists) met their fate at the hands of World War I German snipers. Studying their biographies, it's apparent that these idealists nearly all had marched off voluntarily to war.

Most prominent among those lost was **Wilfred Owen**, regarded as one of the best poets of his era. Wounded several times, Lieutenant Owen was hospitalized in England with shell shock, where he met another major poet, **Siegfried Sassoon**, who likewise was being treated for psychological trauma. Both went back to combat, where Lieutenant Owen was killed by a sniper's bullet just seven days before the armistice.



Wilfred Owen, one of Britain's finest World War I poets, was killed by a German sniper.

Sassoon, like Owen a volunteer, was commissioned in the Royal Welch Fusiliers, where he earned a Military Cross and fought at the Battle of the Somme. After being wounded and later treated for shell shock—and despite declaring his own pacifism—Sassoon went back into combat to rejoin his men. On 13 July 1918 he suffered a severe head wound from a German sniper, though he survived to continue writing.

Not so fortunate was **Arthur West**, whose wartime poetry brought the lost lieutenant considerable acclaim. A sniper killed him on 3 April 1917 near Bapaume, France.



Siegfried Sassoon, a friend of Owen and a renowned post-war poet, barely survived a severe head wound.

Edward "Bim" Tennant, another British poet, was the eldest son of Edward Tennant, a liberal Member of Parliament. He lost his life to a sniper on 22 September 1916 near the village of Lesboeufs.

Charles Hamilton Sorley wrote 37 wartime poems, published posthumously as *Marlborough and Other Poems*. He was killed on 13 October 1915 at Loos, his life snuffed by a sniper's slug. Henry Simpson, like Sorley, wrote stark descriptions of life in the trenches, which were published after he was killed by a sniper on 29 August 1918.

By contrast, **Julian Grenfell**, whose "Into Battle" is among the most anthologized poems of World War I, was awarded the Distinguished Service Order in November 1914 for stalking and killing German snipers. Grenfell died of wounds on 30 April 1915.

But poets weren't the only writers dying. **H.H. Munro**, a prominent pre-war novelist writing under the pseudonym Saki, was killed by sniper fire on 14 November 1916. Munro had taken cover in a shell crater, and his reported last words, snapped at a comrade, were "put out that damned cigarette!"

Another writer killed by a German sniper in 1916, **Lieutenant Alec Johnston** of the 1st King's Shropshire Light Infantry, had been a regular contributor to the magazine *Punch*.

Yet another 1916 sniper victim was the accomplished British composer **Lieutenant George Butterworth**, shot dead on 5 August during the Battle of the Somme. He was posthumously awarded the Military Cross.

Shot through the right knee by a German sniper, British actor **Herbert Marshall** went on to a motion picture career despite his artificial leg. Marshall starred in more than a dozen films in the 1930s and '40s, including such Alfred Hitchcock films as *Murder* and *Foreign Correspondent*.

In American ranks, artist **Horace Pippin** was shot by a German sniper and survived, although he lost the use of his right arm. An African American painter, Pippin adjusted to his disability and today is regarded as one of the great primitivists of his century. The only notable American poet killed in World War I was **Joyce Kilmer**, another idealist—and, eerily, he too fell to a German sniper's bullet.



Herbert Marshall twice starred opposite Betty Davis (*The Letter*, *The Little Foxes*) and in two Alfred Hitchcock films, despite losing his right leg to a sniper's bullet.

school or training camp—adds interest and looks very practical—but just doesn't always pan out anywhere else." An advocate of patient, methodical surveillance, McBride did not believe in shortcuts, although he thought empty tin cans left on the parapet could achieve the same result: drawing a bored sniper's shot, which was then backtracked to the hidden gunman's position.

Many tricks, techniques, and subterfuges, along those hundreds of miles of trenches, gradually wore down the German advantage until, by late 1915, the Kaiser's army had lost dominance of no-man's-land, and not long afterward it was British snipers who commanded the terrain, though there never would be a shortage of German snipers. Halfway across Europe, however, this contest was up for grabs at an obscure location where Australian and Turkish snipers stalked each other; Gallipoli.

TO THE SHORES OF GALLIPOLI

On 25 April 1915 a combined force of Australian and New Zealand (ANZAC, or Australian New Zealand Army Corps) troops landed on the Aegean Sea's Gallipoli Peninsula, where strategic high

A Gallipoli Sniper Poem

Australian poet Tom Skeyhill penned "The Sniper," while fighting at Gallipoli in 1915. Here are five of his thirteen verses, which capture both the enmity and the respect Skeyhill and his comrades felt for these deadly foes.

'E digs 'isself in neatly
Until 'e can't be seen;
'E crawls among the bushes,
An' paints 'imself all green.
'E climbs up stunted pine-trees,
An' snipes away at us.
But 'e never show 'is pozzy,
An' never makes a fuss.

'Is rifle's got a silencer,
An' it never makes a flash;
You don't know that he's shootin';
Till you 'ear his bullets splash.
Then you know it's time to 'ook it,
'Less you want one thru the head,
For Mr. Turkish sniper
Never wastes 'is bit a lead.

If 'e's shootin' from a thousand,
Or just from twenty-five,
You'll 'ear 'is bullets 'umming
Like bees around a 'ive.

'E's mighty fond o' loop-'oles,
An' 'e likes the Maxim-gun;
At smashin' bally periscopes
'E fairly takes the bun.

If you leap out from the trenches,
To cut scrub that grows around,
You'll see 'is purrin' bullets
Ploughin' furrers in the ground.
If you're fixin' up entanglements,
An' stickin' up barbed wire,
He's on you like a lynx-cat,
With 'is deadly snipin' fire.

But when 'e gets upon our flanks
It stirs our slumberin' ire,
An' we curse the Turkish sniper,
With 'is enfiladin' fire.
'E 'ides be'ind our trenches,
An' piles up 'eaps o' slain;
'E shoots us in the brisket
An' makes us yelp with pain.

ground overlooks the Dardanelle Straits, which lead from the Mediterranean into the Black Sea. This was to be a double checkmate, for seizing the peninsula would both sever Turkey from Germany and open a sea route to send supplies to a badly beleaguered Russia. This plan was bold in concept but not in execution; the Turks, advised by German officers, knew what was coming and had a full month to prepare defenses. Occupying the high ground and armed with quality Mauser rifles, Turkish snipers would raise bloody hell.

Within hours of going ashore with the first wave, Lieutenant Colonel Lancelot Clarke, commander of the 12th Australian Battalion, was shot dead by a Turkish sniper. Not far from him, Chaplain Bernard Kavanagh, ministering to a wounded soldier, also was killed. All along the beaches and low hills, well-aimed shots snatched lives. As one account states, "In the first two or

three days' fighting the toll in officers had been intolerable, owing to the efforts of these sharpshooters, whose mission was to pick off the leaders of the men."

One mortally wounded soldier repeatedly told those treating him, "By God, that Turk could shoot well. He got me a beauty, didn't he? I feel pretty bad and expect I'm done for, but strike me dead, that Turk could shoot all right!"

Private Jack Simpson, a medic trying to help wounded men, found a terrified donkey and used it to carry ambulatory

soldiers to the beach, 13 times bringing men to safety before he, too, was killed by a sniper—who also shot the donkey. Some five statues of Simpson and his donkey eventually were erected in Australia.

Three days into the operation, Lieutenant Douglas Freeman of the 15th Australian Battalion took on the Turkish snipers. Taking a soldier's rifle, Lieutenant Freeman fired at a



A soldier at Gallipoli attempts to lure Turkish fire so a sniper (rear) can engage him.



A Turkish trench at Gallipoli.

sniper but, believing it a miss, ran the bolt and settled down to fire again. "Simultaneous with its report," one account states, "came the crack of the sniper's rifle and Freeman fell back dead in the trench." By then, after repeated assaults uphill into well-prepared Turkish positions and as targets of unrelenting sniper fire, the Australians had suffered incredible casualties, with half their men wounded, killed, or missing.

Then the fighting stalemated into trench warfare, much like the western front, but at

Gallipoli the Turks held most of the high ground, giving their snipers vast fields of fire and observation. One Gallipoli history estimates that "by early May they were losing twenty to thirty men a day" due to snipers.

So many Australian and Turkish soldiers were killed in a late May attack that a temporary cease-fire was negotiated to recover bodies, set for 24 May at 7:30 A.M. Lieutenant



Flanked by two Aussie soldiers, this walking bush is a captured Turkish sniper.

William McAllister, perhaps expecting a sniping respite, raised his head to peer at the Turkish lines a few minutes early; an enemy sniper shot him dead.

A Tale of Five Generals

More than any other World War I battlefield, the four-mile front at Gallipoli saw snipers successfully pick out and pick off general officers. On the very day the troops landed, 25 April 1915, Brigadier General Henry Bennett, accompanying his troops up the slopes of Pine Ridge, was seriously wounded by a sniper's bullet.

Two days later, Brigadier General Henry MacLaurin, commander of the 1st Australian Infantry Brigade, was standing on a slope assessing his unit's positions when a sniper's shot cut him down, killing him instantly. He did not know that hardly 10 minutes earlier one of his staff officers, Major Francis Irvine, had climbed an adjacent ridge for the same purpose. A half-dozen men shouted to Irvine, warn-

ing of the sniper danger. "It's my business to be sniped at," the major barked back. Momentarily a shot rang out, killing Irvine, most likely fired by the very sniper who would kill MacLaurin.

The commander of Allied forces at Gallipoli, Major General William Bridges, a by-the-book former staff officer, placed no special emphasis on countering the enemy's snipers. Whether it was courage or obliviousness, on 15 May 1915, while touring positions in the Monash Valley, General Bridges walked through an open area right into a Turkish sniper's crosshairs. Badly wounded, Bridges collapsed and was dragged to cover, where it was discovered the bullet had severed his femoral artery. Three days later he died, the highest-ranking officer to perish at Gallipoli.

Just one day before General Bridges was shot, the officer who would replace him, then-Brigadier General William Birdwood, raised a periscope above a trench, unwittingly raising his head at the same time. A Turkish sniper's bullet smacked into Birdwood's head, grazing his scalp and "knocking him senseless." He soon recov-



Major General William Bridges, commander of ANZAC forces at Gallipoli, was killed by a Turkish sniper.



Brigadier General Henry MacLaurin, commanding the 1st Australian Infantry Brigade, was killed by a Turkish sniper.

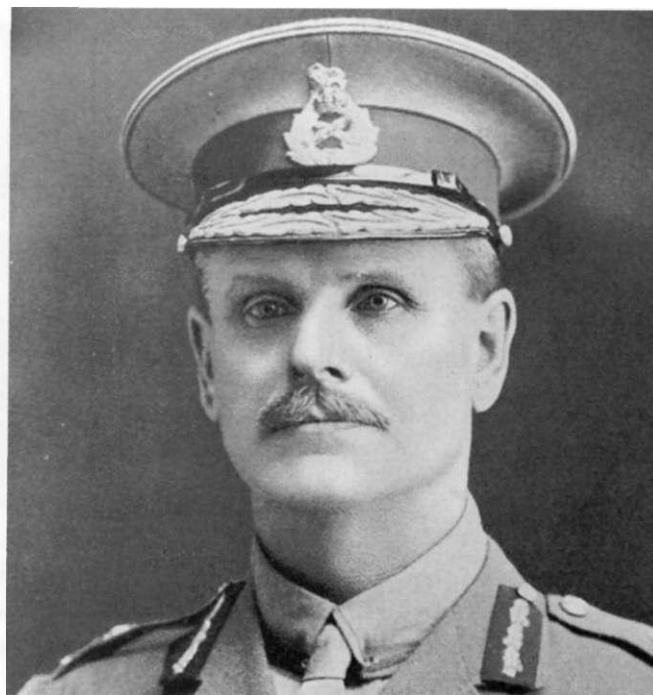
ered and understandably attended to organizing countersniper forces.

Perhaps the luckiest Australian general officer of the war was Brigadier General Charles Rosenthal, a bold artilleryman with a reputation for leading from the front. On 27 July 1915, a Turk sniper shot him through the left leg, but the determined Rosenthal would not allow himself to be evacuated, walking with a cane until the wound healed. Three years later, on 19 July 1918, Rosenthal wore two stars and commanded the Australian 2nd Division in France, where he decided to take one of his famous recons of the enemy's forward lines. This time it was a German sniper who spotted Rosenthal, again wounding, not killing, him. Retiring as a three-star lieutenant general, Rosenthal was later

knighted, having twice survived sniper wounds and also recovered three additional times from injuries by poison gas or bursting shells.

These were not the only Allied generals shot by Turkish snipers. Five miles up the coast, on 30 August 1915, British Brigadier General Paul A. Kenna was touring his front lines at Sulva

Bay when a Turkish sniper spotted him. Seventeen years earlier, then-Captain Kenna was with the 21st Lancers and one of England's greatest heroes fighting in the Sudan. At the Battle of Omdurman he had heroically rescued a fellow officer by galloping through heavy fire to pull him aboard his own horse and ride to safety, an act for which he received the Victoria Cross, Britain's highest award. All it took to end that great, gallant spirit, however, was a single 7.9mm bullet, fired by a Turkish sniper, which killed General Kenna instantly.



His scalp creased by a sniper's bullet, Brigadier General William Birdwood survived to take command after Major General Bridges was not so fortunate.

Australia's Countersnipers

No Allied force in World War I paid so much to learn so quickly as did the Australians at Gallipoli. When the contending lines stabilized into trenches, the Turks still held most of the heights, enabling Turkish snipers to look right down the Aussies' throats. In addition to extensive trenches, dotting the high ground were hundreds of scrub oak trees, providing shadows and concealment for hiding and stalking. The Turks did not yield easily, displaying toe-to-toe tenacity against their Australian counterparts.

When an Australian rifleman spotted a Turkish sniper in no-man's-land hiding behind a dead body, one account states, he carefully drew a bead on him. But before the Aussie could fire, "another sniper got him through the head." Stepping past the dead soldier, another Aussie raised up, aimed, and fired, killing the Turk—only to collapse, shot by still another Turk sniper. When Private F. Muhleisen of the Wellington Infantry Battalion, "a first class shot," took it upon himself to snipe at the Turks, he was shot dead the first day.

Only after General Birdwood personally organized the countersniper effort were significant results achieved. Properly equipped with telescopes and sniping rifles, by summer the Australian two-man sniper teams began having a telling effect. Some were former kangaroo hunters who already had the sniper's mindset, while others simply responded well to the challenge. Sergeant William "Billy" Sing (see "Australia's Greatest Sniper," page 336), a prewar competitive rifleman, was Australia's most



An Australian sniper (right) aims a periscope rifle while his spotter (left) observes through a periscope.



While his observer spots through a telescope, an Australian sniper takes aim at a distant foe.

accomplished sniper, accounting for more than 200, and perhaps as many as 300, Turks, many of them enemy snipers. Corporal H.V. Hitch of the 11th Australian Battalion, using a captured Mauser rifle, specialized in hunting down enemy snipers and "would sometimes be away for more than a day."

A particularly dramatic engagement occurred when a Turk sniper was spotted slinking between bunkers and an Australian soldier grabbed his rifle to aim, mentally noticing that the man had "a string of grenades hanging around his neck." Before the Aussie could fire, a machine gun let loose a burst, which apparently struck a grenade. "One second I was looking through my sights at the Turk; the next, he had disappeared, and in his place was the most marvelous combination of all colors of flames I have ever seen." He told a mate, "It reminds me of the Fourth of July celebration in the States."

This countersniping effort was accompanied by much ingenuity. Lance Corporal W.C.B. Beech of

Australia's Greatest Sniper

Many Australian soldiers at Gallipoli rose to the hazardous challenge of countersniping, but one former cowboy and kangaroo hunter especially demonstrated great skill, courage, and determination to prevail in these one-shot contests. Sergeant William "Billy" Sing, a slight Eurasian trooper with the Australian Fifth Light Horse Regiment, arrived at Gallipoli three weeks after the initial landings and, along with his trooper comrades, found himself transformed into an infantryman.

A product of Queensland's remote bush country, Sing had grown up with firearms, mastering the rifle, and had shot competitively with the Proserpine Rifle Club. After only a short exposure to Gallipoli's trenches, the former 'roo hunter took up a sniper's rifle and began his hunt for enemy targets. His first spotter, Ian "Jack" Idriess, called Sing "a picturesque little mankiller" and described him as "a little chap, very dark, with jet-black moustache and a goatee beard."

For the diminutive Sing, sniping was not a crusade or a calling but a personal challenge at which he excelled due to his patience, perseverance, and attentiveness—matched, of course, by superb marksmanship. He preferred to occupy a hide or shooting position well before daylight and then stay there all day with his observer/spotter, not emerging until darkness, whether he'd fired or not. Spotter Idriess compared this to "a cat watching a wall with many mouse holes," waiting for a Turk to shoot or emerge or make a run for it. "He played the Turks at their own game, and beat them badly," wrote Major Oliver Hogue, a Gallipoli veteran.

These contests did not always go Sing's way. During one engagement, a Turkish sniper placed a round right through the telescope of his spotter, Tom Sheehan, seriously wounding him. Still, though, the 29-year-old Sing outshot, outwitted, and outmaneuvered many dozens of Turks.

By mid-September 1915, Sing was credited with 150 kills against Turkish snipers and soldiers, which was reflected in a Distinguished Conduct Medal that covered the period from mid-May to 15 September, his first five months at Gallipoli. On 23 October, the Gallipoli commander, General William Birdwood, one of Sing's many admirers, presented him with a letter of commendation that cited "201 confirmed kills." Given that Sing continued to snipe there for another three months, his final tally could well have neared or even exceeded 300.

After Gallipoli, Sergeant Sing fought in France as a sergeant leading a detachment of snipers. In September 1917, he was cited for his countersniper detachment's killing of a concentration of German snipers that had been picking off his fellow Australians.

Returning to Australia, this World War I legend went back to live in the interior and died in 1943. A bronze bust at Clermont, Queensland, memorializes him.



Sergeant Billy Sing may have accounted for as many as 300 "kills" as an Australian sniper.

The Last of the Great Hunter-Explorers

Though Africa is an all-but-forgotten theater of World War I, it was here that the last of the great hunter-explorers met his fate in a German rifle scope.

At the war's outbreak, Germany had 3,000 soldiers and 12 companies of native Askari troops in German East Africa, led by the resourceful General Paul von Lettow-Vorbeck. Invading the neighboring British colony of Kenya, Lettow-Vorbeck's army tore up a major railway, starting a four-year fight of maneuver, ambush, and evasion.

During one back-and-forth campaign in early 1917, the Legion of Frontiersmen—a British volunteer unit composed of hunters, settlers, and adventurers—clashed with Lettow-Vorbeck's army near German East Africa's Rufiji River. Among that unusual British band was Frederick Courtney Selous, 64, famed worldwide as a great hunter and explorer. In fact, Selous had guided former President Theodore Roosevelt during his 1909 African safari, earning his respect and friendship. Roosevelt called him "the last of the big game hunters of Southern Africa."

Just eight years later, now-Captain Selous found himself deep in German East Africa, near the village of Behobeho, attempting to locate German snipers who had been plinking at his men. According to an eyewitness:

"At this stage Selous went forward down the slope about 15 yards, and was just raising his glasses in order to see (more particularly) where certain snipers were when he received the first wound in his side. He was half-turning toward us when he was shot [again] through the side of the head."

Selous' manservant, Ramizani, who had been with him many years, cried, seized a rifle, and, according to Corporal R. Davis, "shot the sniper." Afterward, General von Lettow-Vorbeck said that he once had spared the old hunter's life when he had him in his sights and that, with this loss of Africa's last great hunter-explorer, both sides would mourn.



Former President Theodore Roosevelt was guided during his 1909 African safari by famed hunter-explorer Frederick Courtney Selous (rear).

the 2nd Infantry Battalion handcrafted a periscope rifle, which he fired over the parapet at Turkish snipers. Impressed by Beech's weapon, a staff officer, Major T.A. Blamey, had them mass-produced and distributed all across the front. Other soldiers fashioned fake periscopes to draw enemy fire, and, as on the western front, realistic false heads were propped up to lure sniper fire. The Aussies even fabricated their own fixed rifles for night firing, which they called "the Wallaby sniping cage."

One indicator that Turkish sniper ranks were declining was witnessed by E.C. Buley, who saw a captured sniper:

"I saw with my own eyes one sniper brought in, all covered with twigs and painted green in the face. This sniper was smoking a cigarette presented by one of our fellows, and when a couple more added a pat on the back and said, 'Cheero,' the sniper burst into tears. It was a young Turkish girl. Upon my word, I saw the thing happen."

By the fall of 1915 Australian snipers had gained the upper hand at Gallipoli, but that meat grinder of unending casualties—more than 100,000 Allied soldiers had been killed or wounded without concrete results—led to an inevitable decision: on 19–20 December, the ANZAC force was withdrawn for redeployment to the western front.

There they would again fight with distinction, and this time the stalemate would not be unending. For it wasn't long before the Yanks would be coming.

SNIPERS FROM THE NEW WORLD

shooters who knew firearms and adapted well to their calling.

It was not until World War I that North Americans—Canadian and U.S. soldiers—first fought on European soil. Unlike the snipers of most countries who practiced their craft there, many New World riflemen had grown up around firearms and hunting amid forest land not known to Europe. The Germans may have approached sniping from a technical-mechanical perspective and the British from an almost logical-academic view, but to the North Americans sniping reflected more closely a natural way of life, their greatest practitioners being “close to the earth” outdoorsmen and

THE CANADIANS

Entering the fray three years before the United States, Canada’s soldiers early on had felt the sting of German snipers, much as had their British compatriots. On 23 April 1915, Lieutenant Colonel William Hart-McHarg, commanding the 7th Canadian Battalion, had fallen to a single, well-aimed shot at Ypres “while conducting a reconnaissance forward of our positions.” But this was no ordinary officer. Hart-McHarg, an attorney from Vancouver, was himself a superb rifleman, one of Canada’s finest. In 1908 and 1913, he

won the Governor-General's Rifle Match at Ottawa and then went on to Camp Perry, Ohio, where he won the Palma Match, making him the world champion, long-range rifle shooter. The loss of so renowned a rifleman had to have affected unit morale.

The same was true for Canada's Princess Patricia Light Infantry Battalion. On 20 March 1915, the unit commander, Lieutenant Colonel F.D. Farquhar, formerly the military secretary to the Duke of Connaught, was shot dead by a single round—a long-range sniper's shot or possibly a stray bullet. Sergeant Major Fraser, the unit's most senior noncommissioned officer, was similarly killed just five weeks later by a single bullet to his head. If German snipers could kill these leaders, the Princess Patricia soldiers had to have told themselves, they can kill *us*. Indeed, within 24 hours of their unit's arriving in the trenches at Ypres, they had lost two enlisted men, Privates MacNeil and MacNash, and Captain D.O.

Newton, all to enemy snipers. Lieutenant Colonel William Marshall, another Canadian battalion commander, was struck and killed while inspecting frontline trenches, this time unambiguously by an enemy sniper.

They may have started at a disadvantage, but, like the British, the Canadians soon struck back with snipers of their own.

Canadian Sniper Training and Weapons

Like the British, the earliest Canadian snipers were self-taught marksmen who did their best with what they had. One of these early snipers, Corporal Jim Christie of the Patricias, had been raised in the rugged Yukon, where he'd hunted mountain sheep and carefully practiced trial and error to hone his sniping skills. American volunteer Guy Empey served with a colorful self-taught Canadian sniper



Lieutenant Colonel William R. Marshall, a Canadian battalion commander, was killed by a German sniper.



Canadian Army sniper officers at a sniper school in France, 1916. Note the periscope rifles. (National Archives of Canada.)

nicknamed "Old Scotty." A former Canadian Mounted Policeman, prospector, and cowboy, Old Scotty was a crack rifle shot and soon found himself hunting the Huns. As Empey recalled:

"Old Scotty had the freedom of the brigade. He used to draw two or three days' rations and disappear with his glass, range finder, and rifle, and we would see or hear no more of him until suddenly he would reappear with a couple of notches added to those already on the butt of his rifle. Every time he got a German it meant another notch. He was proud of those notches."

Old Scotty was reminiscent of California Joe in the American Civil War; however, feisty spirit alone could not sustain the older man in the inhospitable dampness of field operations. Before long Old Scotty had to be medically evacuated with acute rheumatism.

Soon, though, improvisation gave way to a methodical approach, and only a year into the conflict Canadian divisions had their own Scouting, Observation, and Sniping (SOS) Schools. Major N.A.D.



Canada's superbly accurate Ross rifle, with a Warner & Swasey 5.2x scope. Note its lengthy 28-inch barrel. (Archives of Ontario.)

Armstrong, who'd been a civilian competitive shooter in British Columbia, headed the 2nd Army's SOS, and 20 years later authored the British Army's World War II training guide, *Fieldcraft, Sniping and Intelligence*. Canadian snipers benefited greatly from this quality instruction, as well as from their Ross sniper rifle, which hands down proved to be the most accurate rifle of the war. Unfortunately, it was also the least reliable.

First, though, to accuracy. Designed by Sir Charles Ross and manufactured in Quebec, the Ross rifle set a commendable prewar record in national and international competitions. This was the rifle that Lieutenant Colonel Hart-McHarg had used to win the Canadian championship and the Palma Match at Camp Perry; it swept the 1909 British matches at Bisley, taking virtually all the major prizes, and again in 1913, winning 91 percent of Bisley prize money and every first, second, and third place category. The *New York Herald* called the Ross rifle "the champion of the year," while the *London Standard* hailed the "great triumph for the Ross rifle which has beaten all the world's rifles."

Captain H.W. McBride

When Imperial Germany invaded her neighbors, hundreds (possibly thousands) of U.S. citizens crossed the border to Canada to enlist in her armed forces, among them Herbert W. McBride, who had been a captain in the Indiana National Guard. Because of McBride's experience as a competitive high-power rifle shooter—even firing at the NRA National Matches at Camp Perry—he was commissioned a captain and musketry instructor for the 38th Canadian Battalion.

Along with his battalion, he deployed to France and commanded a machine gun section—until one decisive day in 1915. As he later wrote,

“Up until this time I had taken the war as a more or less impersonal affair and had not gone out of my way to look for trouble or for someone to kill. But on November 14th, a German sniper killed Charlie Wendt, one of my own boys.”



Captain H.W. McBride, champion U.S. rifleman and Canadian sniper. His book, *A Rifleman Went to War*, is a classic.

Mortally wounded in the abdomen, Wendt “asked me to get about ten of them for him,” McBride continued, “and I told him that I would do it.” Afterward, McBride witnessed German snipers calculatingly kill several unarmed stretcher bearers, and “now, the matter had become personal.”

Near the village of LaClytte, he attended a newly organized Canadian sniping school, after which he returned to the trenches with a Ross sniper rifle and a vow to kill 50 Germans, especially snipers. Like H. Hesketh-Prichard, McBride went on to both snipe and instruct snipers, fulfilling his vow to Charlie Wendt, with one estimate placing his kills at more than 100. After the war Captain McBride authored an excellent account of World War I sniping that is today considered a classic, *A Rifleman Went to War*.

Such accolades were well deserved. In 1914, the Ross Company publicized a five-round group fired at 500 yards that measured just 4.2 inches. Another documented group, this containing 10 rounds fired at 1,000 yards, measured only 18 inches. Captain H.W. McBride, a World War I sniper, witnessed 40 consecutive bull's-eyes fired by a Ross rifle at 300 yards into a 6-inch bull.

Prewar rifles had been chambered for a cartridge of Sir Charles' own design, fittingly called the .280 Ross. Firing a 143-grain bullet, it left the muzzle at 3,250 feet per second, one of the fastest rounds of its era. When the Canadian Army acquired the rifle's Mk. II version, however, it was chambered for the standard .303 Enfield cartridge; accuracy did not appear to have declined, especially, according to McBride, when firing Mk. VII .303 ammunition.

The problem with the Ross was not accuracy but its mechanical operation. Employing an extremely fast, straight-pull, bolt action, it operated much like today's Blaser or the old Swiss Schmidt-Ruben. Rather than rotate the bolt, the shooter simply pulled it back and thrust it forward, which worked just fine in rifle matches or during peacetime training. But in the heat of battle, when Canadian soldiers fired rapidly and reloaded and fired and reloaded, the metal overheated and the locking lugs jammed in the receiver; imagine the nightmare as hordes of Germans attacked and the Ross bolt froze shut. "Wonderfully accurate weapon as it was," Captain McBride concluded, "it was never built for fast, rough work."

There was also a "Murphy" problem. The Ross bolt could be incorrectly assembled so that it would fire a cartridge without being fully chambered, which could seriously injure or even kill a shooter. Because of this danger and the overheating problem, in 1916 the Canadian Army withdrew the Ross rifles, replacing them with British Enfields—except for snipers. Canada's well-trained snipers used the superbly accurate Ross throughout the war and encountered no difficulties because they knew how to properly assemble the bolt and did not fire at a rate high enough to overheat the receiver. Most of these sniper rifles were fitted with the U.S. Warner & Swasey scope, which will be addressed later. As the war continued, British Pattern 1917 Enfield sniper rifles eventually reached the Canadians so that by 1918 they had an equal number of both rifles.

Canadian Snipers in Action

Quickly learning their craft, Canadian snipers demonstrated that they were a force the Germans had to reckon with, playing a significant role in many operations. A sniper with the 29th Canadian Infantry Battalion crept out in darkness before his unit was to attack on the Somme River and dug in; the next morning, when a well-entrenched machine gun attempted to halt the Canadian attack, he skillfully shot down gunner after gunner, silencing the position. At Vrely, snipers of the 25th Battalion infiltrated behind German machine gun positions, forcing their abandonment before a Canadian attack. Near Folies, a German officer could be seen directing an effective defense that was holding up the Canadian advance. "A sniper shot and killed the officer," an account notes, "with the result that in a short time, both the machine guns were captured, together with about forty men." Even more dramatically, another account reports:

"During the advance through the Foret-de-Raismes our snipers were continuously engaged with rearguard snipers of the enemy, driving them from their positions and by using initiative and pluck they enabled the battalion to advance on one day more than six kilometers with only a few casualties in the Scout Section and one in the companies."

When the Germans positioned artillery within range of Canadian snipers, they paid a terrible price, as had happened in the American Civil War. At Cambrai a pair of Canadian snipers shot down a whole German gun crew that had been firing point-blank at advancing infantry. On another occasion, a single Canadian sniper, firing from an advantageous position, put down an entire battery of German 5.9-inch guns.

On 19 May 1917, the Canadian Corps Sniper School published its graduates' statistics for the previous 1 January to 5 April, adding up 406 "kills" from snipers in the 1st, 2nd, and 3rd Canadian Divisions. "All prisoners captured," the report continued, "stated that the accuracy of our snipers was marvelous and much respected." Analyzing German prisoner debriefs, the report concluded that Canadian snipers were inflicting enough casualties to eliminate one entire German battalion every 20 days.

The Men Behind the Rifles

What sort of men were these snipers? According to an account published in 1916 that cited four snipers with the Winnipeg Rifles (8th Canadian Battalion), all came from the far north and had backgrounds as lumberjacks, hunters, or outdoorsmen.

As a grim way of keeping score, the four had begun cutting notches in their Ross rifle stocks. Some three or four months into this tallying, Private Smith from Roblin, Manitoba, had just 14 cuts in his stock, the least of the group—but he was eager for more.

The unit's most accomplished sniper, Private Ballendine from



Corporal Fred McMullen, a World War I Canadian sniper.



A dead German sniper hangs from the treetop perch where he was shot by a Canadian soldier.

Battleford, Saskatchewan, “learned to handle a rifle with some degree of skill at the age of ten years, and has been shooting ever since,” the account says. “At the present time he carries thirty-six notches in the butt of his rifle.” One notch, Ballendine pointed out, was longer than the rest—a German officer, he explained.



Private Phillip McDonald's rifle displays 42 notches in its stock.
(Royal Winnipeg Rifles Museum, Winston Anders, Curator.)

Private Phillip McDonald from
Port Arthur (today's Thunder Bay)

had 26 notches in his stock. From other sources we learn that eventually his rifle displayed 42 cuts, verifiable today at the Royal Winnipeg Rifles Museum in Winnipeg, Manitoba, where his Ross rifle can be viewed. McDonald was killed not by a German sniper, but by an artillery shell near Messines.

The fourth sniper, also from Port Arthur, was Private Patrick Riel, with a tally nearly the same as McDonald's. A direct descendant of Louis Riel, who'd founded Manitoba Province and led an 1885 rebellion, the former lumberjack had grown up in the wilds and learned to shoot as a youth. Riel killed 30 Germans between March 1915 and January 1916, when, like his compatriot Phillip McDonald, he was killed by incoming artillery. Riel's rifle reportedly is displayed today at the Manitoba Museum of War.

Canada's Distinguished Indian Snipers

Patrick Riel was a Métis, a Canadian of mixed European and Indian heritage, a cultural factor that figured into some of his country's finest World War I snipers. Raised in Canada's woodlands and barren north, these Ojibwa, Cree, Iroquois, and Inuit grew up as hunters and trappers with an appreciation for stealth, camouflage, and marksmanship. In fact, all six of Canada's highest-scoring World War I snipers were of Indian heritage.

One of Canada's finest aboriginal snipers, Lance Corporal Johnson Podash, an Ojibwa, accounted



Canadian Indians enlisting for service in World War I. Many would become snipers and scouts

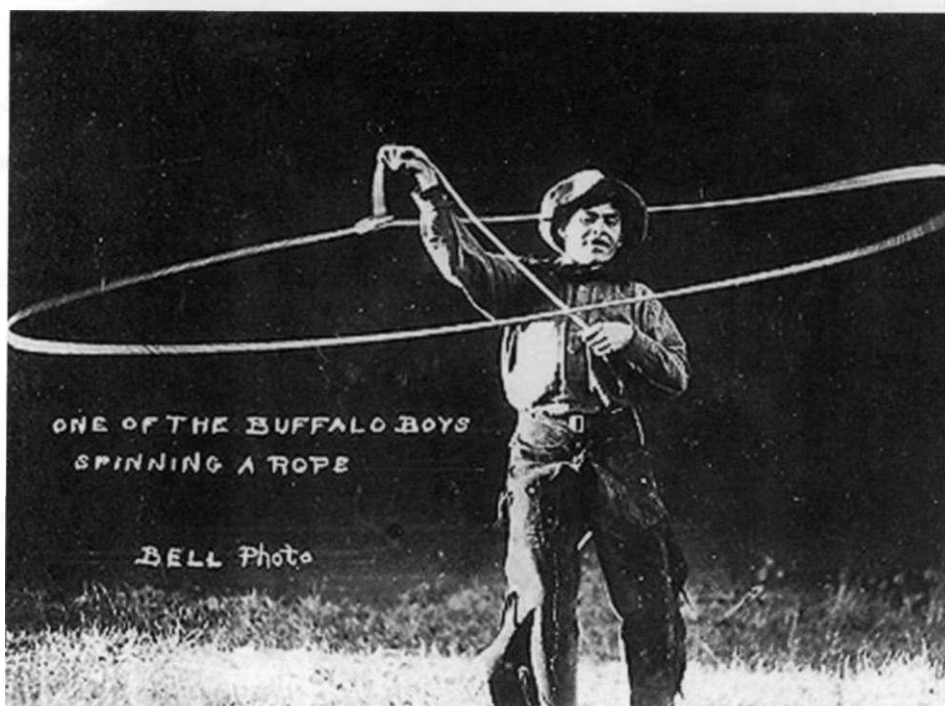
for 88 enemy killed. He survived the war to be a civil servant who fought for Indian treaty rights. A sniper with the Royal Newfoundland Regiment, Lance Corporal John Shiwak, an Inuit, had become a crack shot by hunting caribou in Labrador. He lost his life in France to an artillery shell. Another Maritime Indian sniper, Private Rod Cameron, considered the finest shot in his brigade's 12 battalions, also was killed in action.

Two Canadian Indian snipers performed such commendable service that their stories demand elaboration. Henry Norwest, a Métis of French-Cree heritage, was an Alberta rodeo star and Mountie before he enlisted in 1915 at age 31. Physically tough and hardened by years as a cowboy and lawman, Norwest demonstrated such superb marksmanship that he was

appointed a sniper with the 50th Canadian Infantry Battalion. A 50th Battalion veteran recalled Norwest's eyes as "discs of polished black marble, enigmatic yet hypnotic, strangely piercing yet mellowly compassionate, deadly serious yet humorously twinkling." In France he soon established a reputation for courage and skill, picking off enemy soldiers by the dozens. Sometimes he lay motionless all day, waiting for a shot. A comrade wrote that Norwest

"went about his work with passionate dedication and showed complete detachment from everything while he was in the line . . . [yet] we found him pleasant and kindly, quite naturally one of us, and always an inspiration."

Despite his combat prowess, Norwest proved so shy among women, “ducking” or avoiding them, that his buddies nicknamed him “Ducky.” In combat, though, he never shirked from duty, at the 1917 Battle of Vimy Ridge boldly taking on German forces while his unit consolidated on captured ground. The citation on the Military Medal he received for his actions noted his “great bravery, skill and initiative in sniping the enemy,” which “saved a great number of our men’s lives.” There was no glory-seeking or bloodthirstiness about him because, a friend explained, “he believed his special skill gave him no choice but to fulfill his indispensable mission.” As his score neared 100 enemy soldiers, the keen-eyed Canadian was awarded another Military Medal, this for his courage during the Battle of Amiens. Then, on 18 August 1918, as Norwest and his sniper teammate were stalking a particularly deadly nest of German snipers, his luck ran out; a single sniper’s bullet



Demonstrating his rope skills, Métis rodeo star Henry Norwest later would be Canada’s most accomplished World War I sniper.

instantly took his life. He left behind a wife and two children. Norwest’s official tally was 115 kills, which, according to the Canadian Archives, made him the most accomplished British Commonwealth sniper in France. The King’s Own Calgary Regiment Museum in Calgary, Alberta, today displays one of Norwest’s sniper rifles.

Another legendary Canadian sniper was Francis Pegahmagabow, an Ojibwa from Lake Huron’s Perry Island Band, who joined the 1st Canadian Infantry Battalion. Along with the first Canadian troops, he landed in France in February 1915 and was in action within a month. Lean and sinewy, he demonstrated great skill at stalking and shooting as well as scouting in no-man’s-land and even behind German lines.

Pegahmagabow three times was awarded the Military Medal, one of only 39 Canadians to thrice

receive this high award in the Great War. At Ypres in April 1915, where his battalion lost half its men in three bloody days, “Peggy,” as he was nicknamed, took a bullet through his right leg. As quickly as he healed, though, he was back in combat.

Steadily, he kept picking off enemy soldiers and countering their snipers, accumulating an ever-growing tally of kills. His scouting proved just as important, with his nighttime recon identifying key enemy positions, gaps between German units, and threats to his own lines. The records are incomplete, but it seems his first Military Medal recognized his heroism at the 1916 Battle of Mount Sorrel, where he captured many German prisoners. The following year, at

Passchendaele, the Ojibwa

sniper earned another Military Medal for providing crucial intelligence that allowed “the success of the attack” and then guided reinforce-



Francis Pegahmagabow, Ojibwa chief, World War I sniper, and the most highly decorated Indian in Canadian history. (Courtesy of Woodland Cultural Center. Portrait by Irma Coucill.)



Francis Pegahmagabow's grandchildren donated his decorations to the Canadian War Museum, including his Military Medal with two bars (left).

ing units that staved off a German counterattack. The citation accompanying his third Military Medal has been lost, so we know no details—only that the young warrior fought with consistent courage throughout the war.

It's uncertain how many Huns fell to Pegahmagabow's well-aimed shots—one estimate says 378—but documentation is thin and for lack of records, some 90 years later it's difficult to say. But his tally must have been considerable, for, except for a short convalescence after his 1915 wound, Peggy fought to the very end of the war. His total kills likely exceeded Henry Norwest's.

After the war, like his father and grandfather, Francis Pegahmagabow served as chief of the Parry

Island Ojibwa Band. Before he passed away in 1952, he was inducted into Canada's Indian Hall of Fame. In 2003 the great sniper's medals and a

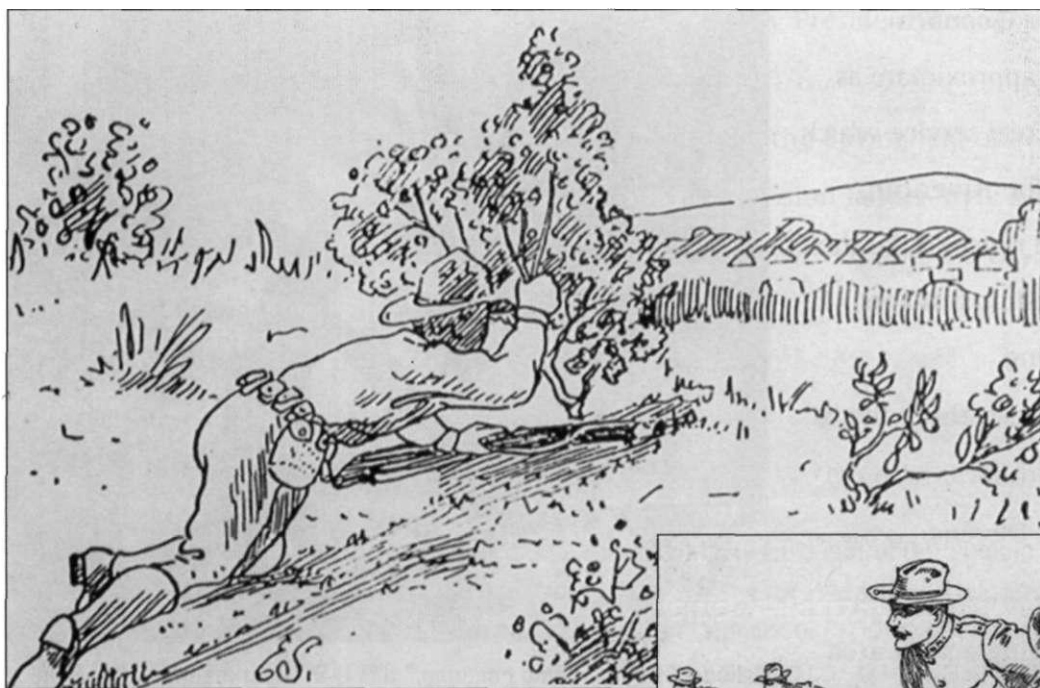
rifle thought possibly to be his sniper rifle—valued by collectors at more than \$100,000—were donated by his grandchildren to the Canadian War Museum. A humble, easy-going man who rarely spoke of his wartime exploits, Francis Pegahmagabow remains the most highly decorated Indian in Canadian history.

U.S. SNIPER TRAIN FOR WAR

Though the Canadians had been in it from the very beginning, it was not until 6 April 1917 that the U.S. Congress declared war against Germany, authorizing President Woodrow Wilson to dispatch an army to Europe. Problem was, there wasn't much of an army to deploy; assembling and training more than a million infantrymen would require an enormous infrastructure and take at least a year.

Only a few years earlier, many senior officers had thought the rifleman's era was waning and machine guns would dominate future battlefields. In 1910 a U.S. Army study concluded that "one machine gun was equal to sixteen riflemen at ranges up to 600 yards; to twenty-two men from 600 to 1,200 yards; and to thirty-nine men beyond 1,200 yards." French army tests dramatically determined "one machine gun served by two men will develop as much effective fire as 200 rifles." It took bitter fighting in France's heartland to shake this silliness from military thought. How could a single machine gun possibly cover as much frontage as 200 entrenched riflemen with assigned sectors of fire? Machine guns could complement, not replace, rifle-armed infantrymen.

With the army's explosive expansion, a specialized infantry marksmanship training center was instituted at Camp Perry, Ohio, called the Small Arms Firing School (not to be confused with the National Rifle Association's school taught there each year during the national matches). The Small Arms Firing School was purely military, commanded by Colonel Morton Mumma with 1,200 instructors teaching a variety of pistol, rifle, and machine gun courses, which included America's first full-fledged sniper school. In his memoir, Captain H.W. McBride recalls that he returned from France in 1918 to visit the Camp Perry sniper course, presumably as a guest instructor. Heading the Camp Perry Sniper School, according to McBride, was a Major Godard, who himself had been trained at a British sniper school in France. Another source discloses that Captain Edward W. Deming was "in charge of small bore sniping and camouflage." The Army's Chief Rifle Instructor at Camp Perry was Captain Smith W. Brookhart, whose official handbook *Rifle Training for War* (see "World War I Sniping Lessons Learned," page 353) included sniping insights. (After the war, Captain Brookhart would preside over the NRA while also serving two terms in the U.S. Senate.)



Above: A prewar U.S. Army handbook's view of stalking.

Right: This is how the U.S. Army depicted scout-skirmishers in 1902, rushing through the open to a bugle call with a sword-armed commander. Twelve years later, this would have been suicidal.



The Camp Perry School benefited from combat-experienced British sniping officers and NCOs who assisted instruction with a healthy dose of battlefield reality. British Major E. Penberthy verifies that British instructors were sent to America, and apparently that there were several such sniping schools or courses in operation.

One of particular note was the U.S. Marine Corps sniper course, set up at Quantico, Virginia, on 19 May 1918. Along with several other tactical courses, this was "intensive" and "advanced training" for selected men before they deployed to France. According to an official USMC account, Quantico's "Scout Snipers" course graduated 75 noncommissioned officers and 375 privates who subsequently fought in

Europe. Along with other Quantico courses, "it was made to approximate as nearly as practicable the real service which the men would have in the American Expeditionary Forces in France." Like the Camp Perry School, British instructors apparently assisted training.

Though few details exist, there likely were other U.S. sniper courses, with evidence coming from Fort Devens, Massachusetts. Twenty years after the war, landscapers renovating a park area in 1938 discovered a concrete sniper position "built for training purposes, and designed to look like a tree." It had been there for many years, so well concealed that it had never even been noticed.

The U.S. Sniper Rifle

Whether U.S. Army or Marine snipers, students at these courses learned to master the same rifle, a relatively new bolt action respected for its reliability and accuracy, the Model 1903 Springfield. Like the Canadian Ross, the Springfield had excelled in international competitions, with, for instance, U.S. military shooters winning gold medals at the 1908 and 1912 Olympics.

Those matches were won firing the rifle's second cartridge. Initially it had been chambered for the .30-03 round, an underpowered design replaced three years later by an improved cartridge, distinguished by its pointed "spitzer" bullet and named for its caliber and year, the .30-06 Springfield. This



Called a "tree-climbing costume," this U.S. experimental camouflage was tested in France.



Heavily camouflaged in ghillie suits, these U.S. Army snipers appear to have been in a stalking exercise.

final design reflected several changes personally ordered by President Theodore Roosevelt, who had tested the prototype.

Weighing 8 3/4 pounds with 45 inches overall length, the Springfield offered great balance and handiness, making it a quick rifle to employ, while its precision ladder-style sight allowed exact aiming. It was inspired a bit too much by the 1898 Mauser, however, and the U.S. government was obligated to pay \$200,000 in royalties to the German company for infringing on five patents, including its fast-loading, five-round stripper clip.

World War I Sniping Lessons Learned

U.S. Army Lieutenant Colonel S.W. Brookhart, who'd instructed sniping at Camp Perry's Small Arms Training School, wrote the 1918 handbook *Rifle Training for War*, which included sniping advice and lessons learned. Interestingly, these have changed very little in almost 100 years. Here are some of his especially noteworthy observations:

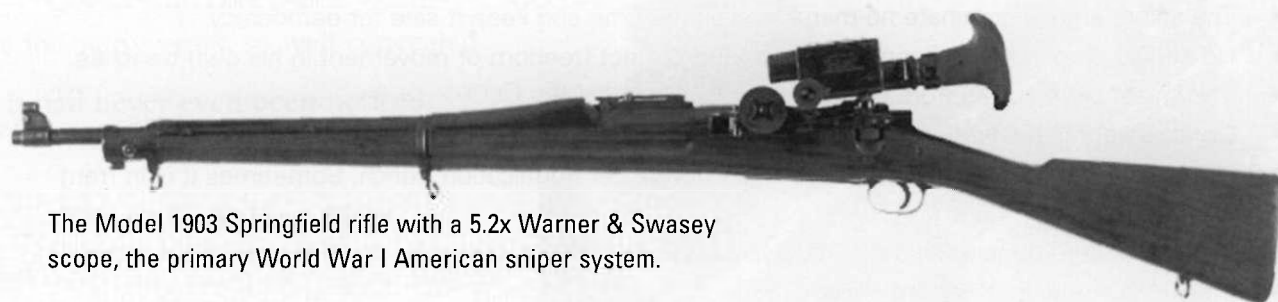
- Sniping is the final training of the war shot.
- The sniper must be expert rifleman enough to make every bullet bring its hit.
- The sniper is in constant battle even when all others on the line are quiet.
- The sniper should dominate no-man's-land all the time and keep it safe for democracy.
- He should dominate the enemy's snipers and protect freedom of movement in his own trenches.
- The sniper always fires from cover.
- Concealment is his first and his constant necessity.
- His post is in or behind his own lines or off from a communication trench. Sometimes it is in front of the lines.
- Sniping is often done at less than 200 yards and from that distance up to 800 yards or even more.
- Sniping is a one-shot performance.
- Snipers often work in pairs—one observing, one shooting.
- The sniper knows his distances.
- The sniper shoots better with the telescope sight.
- The sniper aims quicker than the telescope sight because he sees better.
- The sniper aims more accurately with the telescope sight because his target is more distinct.
- The sniper will hold steadier with the telescope sight because his errors are magnified and he will fight harder to overcome them.
- The sniper will see further with the telescope sight and hit better at longer ranges.
- The sniper without a telescope sight has no equal chance against the sniper with it.
- The telescope sight will permit the establishment of a second line of snipers at greater distance.
- This line will be more efficient because it can be better concealed.
- It becomes a support and a protection for the sniping posts closer in and therefore makes all sniping more effective.
- The training of the sniper calls for the highest skill in marksmanship.

Incredibly, as Congress declared war in 1917, after 11 years of production U.S. government arsenals had manufactured a total of just 16,700 Springfield rifles, due to a lack of funding. Despite the threat of a looming war, the production of these rifles had actually been cut, and many thousands of trainees learned to march carrying broomsticks. Accelerated production yielded more than 100,000 additional rifles by the end of 1917, but that didn't come close to arming the growing military force.

Fortunately, the tooling had arrived in America for a new British Enfield, the Pattern 1917, which overnight was rechambered to .30-06. Winchester, Remington, and Eddystone came to the rescue, putting on 24-hour shifts to produce 2.2 million Enfield rifles by the war's end. Due to the Springfield rifle's superior accuracy, however, none of these Enfields was fitted out for sniping.

U.S. Sniping Optics

Topping many of the Springfield rifles was a purpose-designed sniper scope, the "Telescopic Musket Sight, Model of 1908," or its improved version, the Model 1913. Manufactured by Warner & Swasey, the greatest difference between these prismatic devices was magnification; the first model



The Model 1903 Springfield rifle with a 5.2x Warner & Swasey scope, the primary World War I American sniper system.



Fully "tricked out," this Springfield sniper rifle has a Warner & Swasey scope, a 20-round magazine, and a Maxim suppressor. (Courtesy of the West Point Museum.)

Comparing Sniper Cartridge Ballistics

No matter a World War I sniper's shooting skills, his cartridge's exterior ballistics significantly affected his accuracy, lethality, and maximum range.

To better consider this effect, I employed Sierra's state-of-the-art software to compare the western front's primary rifle cartridges, when loaded to their respective military standards. These were the German 7.92 x 57mm (.323 caliber) with a 154-grain bullet, at a muzzle velocity of 2,880 feet per second and a ballistic coefficient of 0.290; the British .303 caliber (actual .311 caliber) with a 174-grain spitzer bullet at a muzzle velocity of 2,440 feet per second and a 0.369 ballistic coefficient; and the American .30-06 (actual .308 caliber) with a 150-grain bullet at a muzzle velocity of 2,700 feet per second and a 0.335 ballistic coefficient.

Here are the calculations for firing at 300 and 500 yards, assuming a 100-yard zero:

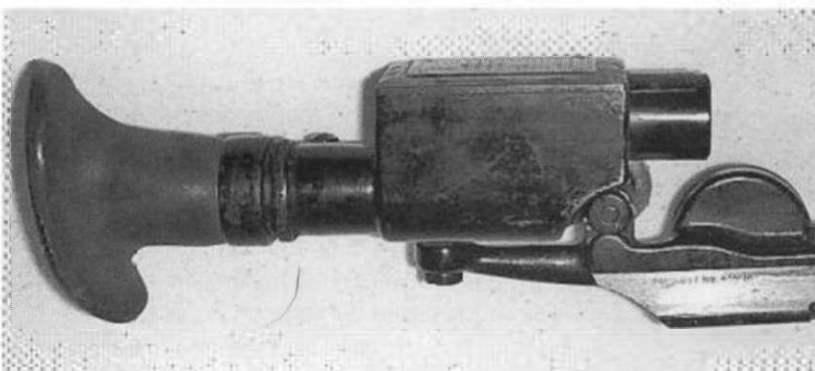
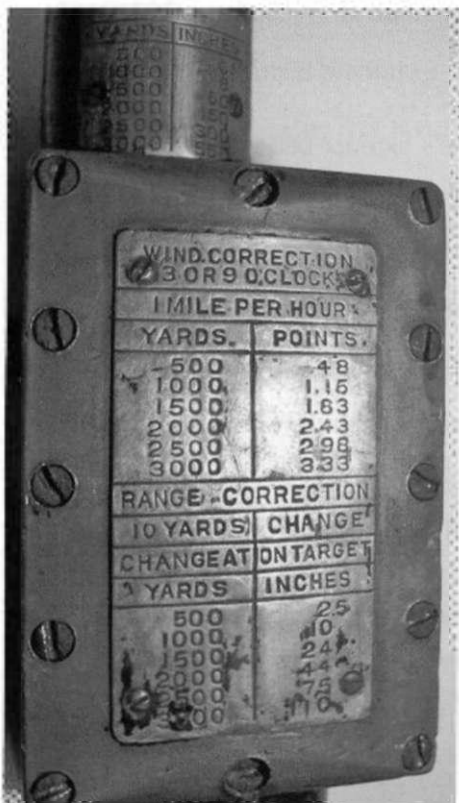
	300 YARDS			500 YARDS		
	Velocity (in fps)	Energy (in ft.-lbs.)	Bullet Path (in inches)	Velocity (in fps)	Energy (in ft.-lbs.)	Bullet Path (in inches)
British .303	1,801	1,253	-19.9	1,447	809	-83.5
German 7.92	2,065	1,458	-13.9	1,610	886	-61.1
U.S. .30-06	1,917	1,224	-16.4	1,488	737	-71.5

The British Army's .303 bullet, starting slower than either the German or American rounds, lost velocity faster (reflecting its heavier weight), which also explains why it dropped more markedly than the others. By 500 yards, the British bullet had dropped 40 percent more the German 7.92mm round and notably more than the American round, which means that a British sniper had to be more exacting in his range estimate or he might easily miss his target. Further, considering his bullet's foot-pounds of energy, his .303 projectile would not penetrate as deeply into an intervening barrier, such as wood, nor cause as much tissue damage on impact.

Germany's 7.92mm projectile, slightly heavier than the .30-06 (154 versus 150 grains), with a slightly faster muzzle velocity (2,880 versus 2,700 feet per second) exceeded the American round in external ballistics, with the gap widening over distance. Thus, a German sniper had a ballistic advantage over his American and British foes, but ultimately a sniper's marksmanship, fieldcraft, tactics, and judgment would weigh in, as well.

was 6x, which was reduced slightly to 5.2x to improve visibility for low-light shooting. In either case, magnification was about double that found on German sniper rifles, offering a significant advantage to U.S. snipers.

Some features on this scope were pretty advanced, such as a step-type reticle rangefinder. Calibrated for a 5-foot, 8-inch standing figure, the shooter simply looked through his scope and held the stadia lines on his target to estimate the distance. As well, the Warner & Swasey offered elevation



Top Left: The Warner & Swasey scope's topside contained detailed technical instructions.

Above: A U.S. Army sniper and his camouflage-painted Springfield with a Warner & Swasey musket sight. (Courtesy of National Archives and Robert Bruce.)

Left: Though it offered some advanced capabilities, the Warner & Swasey scope's offset mount and short eye relief made it difficult to use.

and windage adjustments tailored to the military .30-06 load that were so complicated the scope's brass body displayed instructions. The "wind correction," for example, listed the factor for a 3 o'clock or 9 o'clock wind at 1 mile per hour; if experiencing a 3 o'clock, 1 mile per hour wind at 500 yards, the sniper multiplied 5 times 0.48, to yield 2.5 inches, which is pretty close to true. But, say, the wind was 14 miles per hour at 5 o'clock and the distance 675 yards, you almost needed a pencil and paper. Still, compared to the alternative—which was *nothing*—it was a considerable improvement.

The figures for range correction were pretty on the mark, too, except they jumped across enormous distances at 500-yard increments. Interestingly, the scope also offered compensation data for drift, which

is the tendency of a spinning bullet's centrifugal force to pull it sideways. Not until 1,000 yards does it become significant—requiring 13 inches' compensation, according to the musket sight.

The scope's biggest downside, I think, was the interface between the shooter's body and the scope. If you've ever fired a .30-06, you'll agree that the Warner & Swasey's 1 1/2-inch eye relief was much too short; that soft-rubber eyecup had as much to do with protecting the shooter's eye during recoil as it did with improving his sight picture by blocking light. Further, to allow topside stripper clip reloading, the scope was mounted offset to the left and high. Thus, in order to align his eye with the scope, the sniper had to lift his cheek above the stock, losing a proper cheekweld. This offset also made it complex when firing beyond the zero distance, requiring the shooter to adjust both windage and elevation for each engagement, much as had been the case with the offset scope on the Civil War Whitworth rifle.

"I cannot recall ever hearing a good word spoken about it," observed Captain H.W. McBride, who used his Warner & Swasey extensively in combat, and then added:

"However, it is my opinion that when compared to the others we had at that time, it was a pretty good sight. Naturally, it might not compare with the scope sights of today [1932], as much progress has been made in these since the war. The one I used gave very good results, and was fully as accurate and reliable as the Winchester A-5 type."

As McBride alludes, the other major U.S. sniper scope, the Winchester A-5, was generally considered a higher-quality optical device. A simple, straight-tube optic using a plain, thin crosshair, the A-5 incorporated Bausch & Lomb lenses in an arrangement designed by Yale physicist Professor C.S. Hastings that better resolved magnified images. The A-5 was offered in 3x, 4x, and 5x; for sniping applications, the U.S. Ordnance Department ordered the highest-magnification version. The



Both the U.S. Army and Marine Corps used the Springfield sniper rifle with Winchester A-5 scope.

Winchester scope was popular among snipers because it mounted directly above the bore, requiring only elevation changes when engagement distances varied. Like the Warner & Swasey, the Winchester A-5 had external windage and elevation adjustments built into its mount.

Although the Army probably acquired as many A-5s as the Marine Corps, this scope is usually associated with the USMC because its earliest models had been fitted to prewar Marine competition rifles. According to *American Rifleman* magazine contributing editor Bruce Canfield, some 400 A-5s were purchased for Army snipers, while Captain H.W. McBride reports that the A-5 was used at the Army's Camp Perry sniper course.

America's Greatest Rifleman

When U.S. "doughboys" went into combat in France, what first impressed Allied officers was the quality of their shooting. Speaking in 1919 at the NRA national matches at Camp Perry, USMC Commandant Major General George Barnett told the gathering:

"The marksmanship of our Marines at Belleau Wood surprised and astonished our allies. I was told by a French officer that the most surprising thing he had ever seen during a battle was when the men of the Marine Corps actually stopped to set their sights during the struggle at Belleau Wood."

Similarly, U.S. Army riflemen advanced on the village of Vieville "with their slings adjusted on their arms and their sights set at 500 yards. As they advanced they kept adjusting their sights so that they were always ready to shoot from the range where they were then located." As they neared the town, the battalion commander divided his men into two-man teams, with each team assigned a ground-level window to focus its fire. At the first enemy fire, withering rifle fire slammed into every opening. When the town was secured, 17 machine guns were captured and 69 German bodies discovered. "Every one of them," it was later reported, "was shot squarely through the head by rifle fire."

Such marksmanship shocked the Germans. Lieutenant Kurt Hesse, adjutant of the German 5th Grenadiers Regiment, whose troops made the mistake of stumbling into a U.S. unit, wrote, "I have never seen so many dead. I have never seen such a frightful spectacle of war." With well-aimed rifle fire, the Americans had annihilated two entire companies of German infantry in minutes.

Impressive though such feats of arms were, none was as great as that achieved by Alvin Cullum York, a humble young mountain lad from northeast Tennessee, where Kentucky Long Rifles and one-shot hunting were a way of life. On 8 October 1918, a German machine gun battalion suddenly fired on York's patrol, killing or wounding eight Americans. Seven other GIs scrambled for cover.

Only one soldier stood his ground, ready to fight, the young, redheaded Tennessean, Alvin York. As a boy his mother had told him, "When you're in trouble, Alvin, slow up and think fast." Thinking fast, he slid his holster around so his .45 automatic was handy if he was rushed; then, inspired, York squatted so low that machine guns uphill could not depress their muzzles enough to hit him. This was how he'd hunted turkeys back home, squatting to see under the brush and pick off birds when they raised their heads. In a trench 75 yards away, a German raised his head—*bang!* One shot, one kill. Machine gun bullets cracked over York's head; another German raised his head—*bang!* One shot, one kill. This contest continued for several minutes, with York hastily stripping reloads into his 1903 Springfield rifle, shot after deadly shot, until 18 Germans were dead.

A German officer managed to peek over and realized this was only one man. The officer barked an order, and he and six bayonet-wielding Germans rushed York, who could not run his bolt and shoot fast enough to get them all. Knowing that, the Tennessean coolly dropped his rifle, drew his pistol, aimed, and shot the last man, next the second-to-last man, and then all of them, back to front, as he'd shot flocks of turkeys at home. "Had I have



Sergeant Alvin Cullum York, America's greatest rifleman of World War I. (Courtesy of Congressional Medal of Honor Society.)

Captain Samuel Woodfill, Heroic Rifleman

General John Pershing proclaimed Medal of Honor recipients Captain Samuel Woodfill and Sergeant Alvin York as the greatest American heroes of World War I. He selected both men to represent the U.S. Army at the dedication of the Tomb of the Unknown Soldier in 1921, and to boost soldier morale the Army called both back to active duty in 1942 and appointed them majors to instruct rifle marksmanship at Fort Benning, Georgia. Both were world-class riflemen.

Though lesser known, Woodfill's wartime deeds are truly impressive. A career enlisted man, Woodfill was commissioned a first lieutenant at age 35 and led an infantry company in the 1918 Meuse Argonne Offensive. On 12 October, his unit pinned down by heavy machine gun fire, Lieutenant Woodfill took two men with him and quietly worked his way around several German positions. Later he reasoned, "I didn't



Captain Samuel Woodfill was a great American hero and a superb rifleman.

believe in askin' my men to do something I wouldn't do m'self." When enemy fire grew heavier he went forward alone and from the cover of a shell crater spotted three enemy machine guns. "There isn't much difference between stalkin' animals and stalkin' humans," the Kentucky native explained. "I was usin' the same tactics I'd used in big-game huntin' in Alaska ten years before."

With carefully aimed rifle fire, Lieutenant Woodfill shot dead all three machine gun crews, plus more Germans who attempted to reman the guns. "Four times," he recalled, "a dead gunner was pulled away from [one] gun by a man who took his place, and each time I pulled the trigger of my rifle before he could open fire." From nowhere, a German officer rushed Woodfill, and, amid a hand-to-hand struggle, the American managed to shoot him with his .45-caliber pistol. As more Germans appeared, Woodfill stormed into an enemy bunker, shooting dead another four soldiers; his rifle empty, he then seized a pick and killed two more. At last, his soldiers reached the embattled officer, and the position was theirs, mission accomplished.

Retiring as a captain in 1923, Woodfill continued his love of rifle shooting as an NRA high-power competitor. A superb shooter, Captain Woodfill made the Kentucky State Team and competed in the NRA's National Rifle and Pistol Matches at Camp Perry, Ohio. His favorite competition rifle, of course, was the 1903 Springfield.

Brigadier General A.W. Catlin, USMC

Though German snipers attempted shots against a host of senior American officers, the highest-ranking American actually hit by an enemy sniper was USMC Brigadier General Albertus Wright Catlin.

A veteran of the Spanish-American War and an expedition into Mexico, General Catlin had a colorful past. Though he was not aboard when she exploded, he had been assigned to the USS *Maine* in 1898, and in 1904 he established the first USMC garrison in Hawaii. Today's Camp Catlin, Hawaii, is named in his honor.

As a major, Catlin had led a battalion of Marines ashore at Vera Cruz, Mexico, in 1914 and earned the Medal of Honor for "exhibiting courage and skill [in] the difficult work of clearing their sector of snipers shooting from the windows and the tops of buildings."

During the June 1918 Battle of Belleau Wood, then-Colonel Catlin commanded the 6th Marine Regiment. Accompanied by a French captain, Catlin went forward to observe German positions, ignoring that his companion "had been begging me to get back to a safer place."

Predictably, a German sniper spotted the two officers. General Catlin later recalled that the bullet's impact "felt exactly as though some one had struck me heavily with a sledge. It swung me clear around and toppled me on the ground." Badly wounded in his right lung, he could not move and barely survived surgery performed during a German gas attack. "It is hard enough for a man to breathe with a lung full of blood," he later wrote, "without having one of those smothering masks clapped over his face."

An officer of unlimited potential and great courage, General Catlin was compelled to retire a few months later, the consequence of one German sniper's bullet.



A German sniper's bullet ended Marine Brigadier General A.W. Catlin's colorful career.

shot the leaders," he later explained, "the rear ones would have abandoned the rush, dropped down under cover, and sniped me from the rear."

Another German appeared in a trench; retrieving his rifle, York shot him. Then another and, again, one perfectly fired shot. The Germans had had enough. En masse, 132 soldiers—the *entire battalion*—raised their hands, surrendering to

the keen-eyed country boy. York had fired 27 rifle and pistol shots and killed exactly 27 enemy soldiers, an achievement later called "as accurate an exhibition of rapid, daring and accurate shooting as the world has ever seen." As York put it to General Pershing, "Every time I seed a German, I jes' touched 'im off."

In addition to the Medal of Honor, Sergeant York was awarded 40 high decorations from Allied countries and received commercial offers that would have made him a millionaire. But



Sergeant Alvin York's statue at the Tennessee state capitol. Note that he is holding a Springfield rifle. (Courtesy of Tennessee State Archives.)

he simply went back to the Tennessee hills, married his sweetheart, and farmed the land. Still ready to serve his country, not long after Pearl Harbor York accepted a major's commission and served a tour at Fort Benning as a rifle instructor, which did much to raise morale in those dark hours of early 1942.

Several authors have claimed that York's rifle was a 1917 Enfield, not a 1903 Springfield, relying on a one-line entry in his diary dated May 1918, five months before his Medal of Honor action. The ultimate proof that he used a Springfield stands today on the grounds of the Tennessee state capitol in Nashville, a life-size York statue in a shooting pose, its design assisted personally by that great hero. The rifle York specified for that statue's hands is a Springfield—*case closed*.

American Snipers in Action

There were approximately 100 Warner & Swasey-scoped Springfield rifles in each of the U.S. Army's 42 divisions in France, plus more Marine rifles with Winchester A-5s, which means that roughly 4,600 American snipers fought in the war. Details of their engagements are scant, but fragments appear in award citations, diaries, and staff journals. On 28 July 1918, for example, a 6th Marine Regiment journal notes:

"Corp. Truitt & Daly went out yesterday and sniped a German. These telescopes on our snipers' rifles are the berries. You can bring a Heinie down at two thousand yards."

Private Al Barker, a Marine sniper assigned to the 5th Regiment, wrote about engaging German machine guns with another Marine, Private Jack Kneeland:

"I climbed a tall tree as near as possible to the German trenches and stationed myself there very comfortably. We could see the Germans setting machine guns in position to be used against our forces. We both had our rifles and plenty of ammunition, so we began to pick off the men who were operating the machine guns. We succeeded in putting four of these guns out of commission when we were discovered by German snipers, and had all we could do to defend ourselves. I received a bullet wound in my knee and fell twenty feet to the ground. The other Marine, Kneeland, quickly descended and protected me with his own body, and although he received three bullets, he carried me to safety."

Another Marine sniper, Corporal John Henry Pruitt, would receive the Medal of Honor for his actions at the Battle of Blanc Mont Ridge (see "The First Sniping Medal of Honor," page 365).

Six Distinguished Service Crosses, the nation's second highest award, were presented to U.S. Army snipers in World War I, with each incident a dramatic action. Corporal George Ogden, a Delaware native, "while acting as a battalion scout," drove the crews from two German machine guns "by sniping" and then, with a buddy, turned the captured guns on the enemy and defeated a counter-attack. On another occasion, his well-aimed rifle fire forced 100 Germans to withdraw from a trench, allowing its capture.

Private Lawrence Caulder, a South Carolinian with the 30th Division, crawled 50 yards through intense fire to gain high ground "for the purpose of sniping the enemy machine gunners" who'd

pinned down his unit. Although his sniper teammate was killed, Caulder suppressed the machine guns until tanks arrived.

Sergeant Harry Clark from Cumberland, Maryland, “remained by himself for two days in a sniper’s post in advance of the front line, killing 12 enemy scouts,” then took command when all his company officers were incapacitated, “and steadied his men by his own coolness and courage.”

Corporal John J. Finnegan, an Irish native from New York City, “while acting as a scout and sniper,” crossed the Ourcq River despite intense enemy artillery and machine gun fire to return with crucial intelligence that allowed his unit to destroy several key positions. A second time the scout-sniper crossed the river, and again



Private Al Barker, USMC sniper, shot several enemy machine gunners before he was wounded.



A U.S. Army sniper, Private Leo Hahn, preparing to fire somewhere in France.



Private Jack Kneeland, USMC sniper, saved Barker’s life and survived three gunshot wounds.

The First Sniping Medal of Honor

On 3 October 1918, just five days before Alvin York earned his Medal of Honor, U.S. Marine Corporal John Henry Pruitt was celebrating his 22nd birthday to the extent he could amid a major battle at Blanc Mont Ridge. Supporting an attack by his unit—the 78th Company, 6th Regiment, 2nd Marine Division—the young Arizonan spotted two German machine guns that were impeding his unit's advance.

Taking the initiative, Pruitt single-handedly rushed the two guns, killing their crews with well-aimed fire and capturing both weapons. This so totally amazed enemy soldiers in a nearby dugout that they surrendered to the lone Marine—all 40 of them.

Soon afterward, Corporal Pruitt was sniping at more Germans when an incoming shell mortally wounded him. He was posthumously awarded the Medal of Honor, one of only five awarded to Marines in World War I and the first ever that specifically cited "sniping," although several Civil War Medals of Honor had been awarded to "sharpshooters" or for "sharpshooting." Pruitt was buried with honors at Arlington National Cemetery.



USMC Corporal John Henry Pruitt earned the first Medal of Honor to refer to "sniping" in its citation.

important enemy targets were destroyed. During his third reconnaissance, however, he was mortally wounded and died on the field.

Another New Yorker, Private Edwin Stubbs of the 42nd Division, in broad daylight crawled into no-man's-land to occupy a shell hole just 50 yards from the enemy trenches. "He remained there throughout the day without food or water and sniped at and killed 10 of the enemy," his citation reads. "His deadly aim kept down the observation from the German lines and enabled his company to carry on the work of consolidation."

Accounts from the *Stars and Stripes* newspaper also tell of great sniping engagements. On 11 October 1918, the paper reported, a pair of American snipers used long-range fire to prevent enemy soldiers from capturing a major who'd been pinned in a shell hole. "Every time a German patrol would start out to capture the wounded officer the two snipers, although one was shot



A USMC sniper with a Winchester A-5 scope atop his Springfield rifle.



A great countersniper weapon, the Browning Automatic Rifle, arrived late in the war but proved its worth.



An American doughboy sniper with the 32nd Infantry Division takes aim on the western front, summer of 1918. (U.S. Army photo by Sergeant A.W. Scherr.)

through the thigh and the other through the foot, would open up." After 13 hours, finally the major was rescued.

Heywoud Broun, writing for the *New York Herald*, told of several Army snipers irritated to see a German soldier walking along a road 1,700 yards away, thinking he was immune from long-range fire. Knowing the odds were low for any one of them to hit at such extreme range, the Americans "agreed to count to five and fire together." Sure enough, they fired as one, and Broun reported "down he came." These snipers may have thought they'd discovered a new shooting technique, but, as you've already seen, the simultaneous engagement dates back at least to the days of Timothy Murphy and Morgan's Kentucky Riflemen.

THE FINAL ENGAGEMENT

Unlike many wars, World War I did not end with anyone surrendering. Negotiators agreed on a time when firing would cease—an "armistice" it was called—and that would be the end. They chose the 11th hour of the 11th day of the 11th month—in other words, 11:00 A.M. of 11

Fighting Irishmen

The 69th New York National Guard Infantry Regiment, nicknamed "The Fighting 69th," left for France with much ceremony, its largely Irish ranks having attracted the cream of its generation. Among these patriotic volunteers was young First Lieutenant Oliver Ames, Jr., one of the wealthy and influential "Boston Ames."

Oliver Jr. was grandson of Frederick Lathrop Ames, a founder of General Electric. His great-grandfather was president of the Union Pacific Railroad. In a time when blue-collar workers earned \$500 per year, the Ames family fortune ran into the tens of millions of dollars.

Yet young Ames raised his hand, donned the uniform, and went off to France with the colorful Fighting Irish. On 29 July 1918, his battalion was crossing the Ourcq River when hellacious fire erupted from three sides. Ames' battalion commander became targeted by a German sniper, so the young lieutenant rushed to his side to shelter him—and took a bullet aimed at the colonel. He died instantly, posthumously receiving the Distinguished Service Cross. When Warner Brothers produced a motion picture about the unit, *The Fighting 69th*, actor Dennis Morgan portrayed Lieutenant Ames.

But there's more to this story. The officer he saved, William J. Donovan, went on to earn the Medal of Honor in mid-October 1918. And 23 years after the day young Ames gave his life, President Franklin D. Roosevelt selected Brigadier General William "Wild Bill" Donovan to found the Office of Strategic Services (better known as the OSS), America's World War II espionage and covert actions organization, the predecessor to today's CIA.

Another Fighting 69th volunteer was Alfred Joyce Kilmer, an accomplished and beloved poet whose memorable verses included "The Tree," which begins,

*I think that I shall never see
A poem lovely as a tree.*

Despite his college degree and status as a *New York Times Magazine* staffer, Kilmer, 30, an idealist and patriot, enlisted as a private. Deploying to France with the same battalion as Lieutenant Ames, Kilmer soon



Beloved American poet Joyce Kilmer was killed by a German sniper's bullet.

was promoted to sergeant and joined the unit's intelligence staff as an observer who studied enemy positions and accompanied patrols into no-man's-land.

When a German sniper killed Lieutenant Ames, the poet-warrior volunteered to fill in for Lieutenant Colonel Donovan's lost adjutant. The very first day of his new duty, while scouting a German position, a sniper's bullet snuffed Kilmer's life, too. "What an infinite pity it was that a bullet had to single him out," lamented a comrade. "American literature, nay, the world's literature, suffers a tremendous loss in his death," wrote the editor of *Harper's Magazine*.

Lieutenant Ames and Sergeant Kilmer were buried side by side on a small French farm near where they died.

Lieutenant Colonel William Donovan's life was saved by Lieutenant Oliver Ames Jr., who took a sniper's bullet aimed at his commander.



November 1918. Well in advance, units on both sides were notified, and soldiers could hardly wait for that moment.

In the Canadian trenches at Mons, Private George Price and his friends counted off the final moments. Perhaps the Nova Scotia native had a faulty wristwatch or just couldn't believe that with peace so imminent he was still in danger. But at 10:58 A.M. that fateful morn, Private Price lifted his head above the parapet and instantly fell back, shot dead by a vigilant sniper who wasn't watching the clock.

Private Price is officially listed as the last man to die in the Great War. A bronze plaque marks the spot where he fell, victim to the war's last sniper engagement.

EUROPE'S SECOND SNIPING WAR

Having begun World War I at a sniping disadvantage and paid a terrible human toll, the British Army remarkably found itself identically disadvantaged in 1939—totally without snipers, sniping schools, or even a sniper rifle or proper sniper-scope. Indeed, the Royal Army's few scoped rifles in depot storage were World War I weapons, unimproved since 1918. In Canada, too, newly designated snipers found themselves issued obsolete Model 1905 Ross rifles with antique Warner & Swasey musket sights.

Adolf Hitler's rearmed German army, however, suffered few such inadequacies. Following World War I, Germany's optics industry further

improved lenses and rifle scopes, again leading the world in their development. In the mid-1930s, respected optics maker Zeiss perfected a new lens coating technology that microscopically coated glass with metallic fluoride, achieving the finest light transmission



Germany entered World War II with quality Mauser sniper rifles topped by 4x and 6x scopes.



This Canadian sniper (1942) has an obsolete 1905 Ross rifle with an antique World War I scope.

ever found in a lens. Meanwhile the army had updated its bolt-action Mauser to a shorter, more-robust version called the K-98, with the most accurate rifles set aside for sniping.

THE OPENING FIGHTS

Such disparities initially did not make much difference because sniping had little impact on the battlefield. Commencing with the German invasion of Poland in September 1939, these battles featured a blitzkrieg—"lightning war" of mechanized thrusts supported by air attacks—which avoided head-on battles to strike deep into the enemy's rear. Germany's famed panzer divisions overran Poland in a scant four weeks.

Eight months later it was the West's turn, with powerful German armies invading Belgium, Holland, and France, and Hitler's mighty panzers again overrunning, bypassing, or encircling their less-nimble opponents. According to British Captain C. Shore, a sniping officer and author of *With British Snipers to the Reich*, virtually no British snipers saw action and few (if any) sniper rifles had even been issued.

Just before the miraculous extraction of 338,000 British troops from the French coast at Dunkirk, a small sniper school was begun at Aberdovey, in Scotland, apparently assisted by the famed Lovat Scouts. At the request of the Ministry of War, the British NRA organized another school at the Bisley range complex. That summer of 1940, German bombs struck the Hythe School of Musketry, compelling the Small Arms School (and its Sniper Wing) to move to Bisley, where institutional rivalry and a shortage of rifle scopes brought all sniper training to a halt. "There appeared to be a tendency among Army musketry men to scorn the sniper," wrote Lieutenant Colonel N.A.D. Armstrong, who'd instructed snipers in World War I, "[and] they held that sniping was only a 'phenomenon' of trench warfare and would not be likely to occur again." Thus, while fighting raged in Greece, on Crete, and in North Africa, there simply were no British snipers armed and ready to enter the fray.

The New Zealand and Australian armies did not share this attitude, with each country employing snipers (see "The Greatest Kiwi Countersniper," page 375). In North Africa, where it was assumed snipers had little usefulness, Australia's 9th Infantry Division snipers distinguished themselves in the 1941 Defense of Tobruk. Snipers handily repulsed a German attempt to breach the Aussie lines with direct-fire artillery:

"Three German antitank guns and a small fieldpiece were brought into action, firing behind [strong point] R32. Though under return fire, the D Company post killed the German crew members with sniper fire . . . [while] the Germans were thrown completely off guard by the Australian's aggressive use of snipers . . ."

The Highest-Ranking Target

Leading the tip of Nazi Germany's spear as it thrust westward in 1940 was Lieutenant General Kurt Student, commander of Germany's elite paratroops. A highly decorated World War I fighter pilot, by force of will the Luftwaffe officer had transformed the Reich's handful of parachutists into an all-volunteer division and the first paratroops ever used in warfare.



General Kurt Student, commander of Germany's elite paratroops.

Germany's first westward attack had been executed by General Student's paratroops, who jumped and landed by gliders to capture the key Belgian fortress of Eben-Emael along with critical bridges and airfields on the Dutch border.

Four days into the offensive, Student personally led his 16,000-man airborne force in an assault on Rotterdam, Holland's second-largest city and Europe's busiest port. As the attack unfolded, succeeding better than he'd anticipated, General Student called together his staff officers beneath a bridge in Rotterdam. In a few hours, it seemed certain that Holland would surrender.

Some 500 yards away, an isolated Dutch soldier lay in the low grass of a field, hiding from the German paras, who seemed to be everywhere. Delicately, the soldier lifted his head to look around—and noticed uniformed Germans gathering under a distant bridge. Not certain who they were, he slowly raised his 6.5mm Mannlicher rifle and selected a target—one man who stood in front of the others—and squeezed his trigger . . .

His bullet struck General Student, knocking him down with a severe head wound. Though he was not killed, Germany's highest-ranking paratroop officer would spend the next eight months recovering, and never again would he or his paratroops succeed as brilliantly as in Holland.

As for the Dutch sharpshooter, as quickly as the general fell, he leaped to his feet and ran, escaping with his life. He has never been identified.

The Australian snipers also proved effective at separating German infantry from attacking panzers, leaving the tanks vulnerable to antitank fire and unable to find their way through minefields.

In mid-1942, having addressed other critical priorities, at last the British General Staff authorized a detachment of eight snipers per infantry battalion, incorporating one sergeant, one corporal, two lance corporals, and four privates. To train these men, new sniper schools emerged throughout the British Army, with a sub-course at the Mountain Warfare School in Lebanon, a full course in

The Greatest Kiwi Countersniper

When Sergeant Alfred Clive Hulme of the 23rd New Zealand Battalion saw the sky above Crete fill with German paratroops on 20 May 1941, he did not panic, though that would have been understandable. Only weeks earlier when Greece had fallen to the Axis, he was among 26,000 British, Australian, and New Zealand troops hastily evacuated to the Mediterranean island of Crete. Now, with German fighters and Stuka dive bombers dominating the skies and thousands of elite *Fallschirmjäger*s landing everywhere, instead of shirking away, Sergeant Hulme boldly led counterattacks, throwing back the Germans again and again, especially at Maleme airfield and later at Galatos. His courage inspired everyone around him.

Then he learned that his brother, Corporal H.C. Hulme, had been killed and his unit had to fall back or likely be overrun. Someone was needed to hold off the German snipers who seemed to be everywhere and allow the 23rd Battalion to escape to the coast, where Royal Navy ships could evacuate them.

Sergeant Hulme volunteered. Carrying out his duty "with coolness and determination," he spent several days "stalking the stalkers," killing German snipers by ones and twos with well-placed rifle fire. During the battalion's final withdrawal from Stylos on 28 May, Hulme infiltrated enemy lines by donning the camouflaged smock of a German paratrooper, killing still more snipers. By the time he was wounded later that day and evacuated to Egypt, he was officially credited with having killed 33 enemy snipers, an amazing performance of marksmanship, courage, and boldness. Understandably, Sergeant Hulme was awarded the British Empire's highest award, the Victoria Cross.

But some people cannot leave history alone. In 2006 the long-dead Sergeant Hulme was accused of "war crimes" and "unsanctioned murder" by an uninformed New Zealand college professor. An equally uninformed law professor announced, "Killing enemy soldiers while wearing their uniform [is] *prima facie* a war crime." The ill-informed professors demanded that "the New Zealand government should apologize to the families of the Germans he killed."

In fact, Sergeant Hulme committed no crime. According to the Law of Land Warfare, "putting on civilian clothes or the uniform of the enemy . . . for the purpose of waging war by destruction of life or property" causes soldiers "to lose their right to be treated as prisoners of war . . ." In other words, Sergeant Hulme's sole consequence, had he been captured, would have been summary execution as a spy or saboteur, not prosecution as a "war criminal." The British Special Operations Executive sent hundreds of secret agents into occupied Europe in civilian clothes for purposes of sabotage, who similarly lost Geneva Convention Protections, but it has never been alleged that these heroes were criminals. Nor was Sergeant Hulme, who, without question, was the greatest Kiwi countersniper of World War II.



Victoria Cross recipient Sergeant Alfred Clive Hulme was credited with shooting 33 German paratroop snipers.

One Shot—One Bridge

Quite likely the most climactic, well-aimed shot of World War II was let loose on 26 April 1941 during the German invasion of Greece. The location was the Corinth Canal bridge, the only crossing connecting the Greek mainland and the Peloponnese Peninsula. Capture that bridge, the German High Command knew, and the way would be open to pursue withdrawing British forces, perhaps capturing them before they could be evacuated.

Preparing to demolish the bridge, British Royal Engineers already had rigged its girders and piles with hundreds of pounds of TNT. To their surprise, however, German parachutists and glider troops appeared from nowhere, landing on both sides of the canal. As the nearest German gliders skidded to a halt—just 15 feet away—Captain J.P. Phillips of the Devonshire Regiment and a Royal Engineer officer, Lieutenant J.T. Tyson, had no chance to ignite the fuse. Barely avoiding capture, they ran; then, reaching a position offering cover, Phillips looked back and realized he could see hanging under the bridge a demolition charge containing shock-sensitive TNT. Already enemy paratroopers were starting to dismantle the charges. There was no time to lose. If he could hit that charge with one carefully fired bullet, it would explode and the detonation cord strung between charges would carry the explosion to *every charge* and drop the bridge into the gorge, 200 feet below.

Raising his Enfield rifle, the Devonshire officer took deliberate aim at the small charge and fired. *Nothing.* His first shot had missed. Preoccupied with dismantling the charges, the Germans had not spotted Captain Phillips.

He decided to chance a second shot. Again he aimed carefully, delicately pulled the trigger, and KA-WHAM! All the explosives, hundreds of pounds, went up in one heaving blast, throwing girders into the sky and dropping rubble, men, and vehicles into the canal. One well-aimed shot had done the trick.

Palestine for snipers assigned to the Central Mediterranean Forces, and, after the Allies landed in southern Italy, a course there that supported the British 8th Army.

Back in England, the upcoming Normandy Invasion required training not just for snipers but also a special two-day familiarization course for battalion commanders so the new snipers would be properly employed. Overseeing this training were Majors F.A.H. Wills and O. Underhill, whose schools and courses were conducted from September 1943 until just before the Normandy landings, beginning in June 1944.

GREAT BRITAIN

Britain's No. 4 Mk. I (T) Sniping System

Initially the British Army reissued the World War I-era P-14 sniper rifle with 3x Aldis scope, which, though antiquated, a sniper training pamphlet claimed was “capable of producing a

Point-Blank Zero

An interesting piece of advice in Britain's 1940 training pamphlet *Notes on the Training of Snipers* suggested that a sniper set his scope for 275 yards "and aim at about the middle of the enemy's head" so that "a hit should be scored at all ranges between 25 and 300 yards."

This sighting technique wasn't labeled, but it was a "point-blank zero," the first time I've discovered it in sniping literature. The Brits were really on to something. Theoretically, a point-blank zero exploits the flattest phase of a bullet's trajectory so the shooter can aim dead-on from close to medium range and hit reasonably near his intended impact point. The benefit is that it's extremely fast—no turning knobs or need to hold over, just aim dead-on—and allows some error for range estimates. The compromise is that, from his muzzle to the zero distance, the shooter's bullet impacts a bit higher than his aiming point and then strikes low beyond his zero distance.

To see how well the 1940 advice worked, I plugged .303 ballistic data into my Sierra software for a 275-yard setting and a 250-yard setting. Here are the resulting trajectories:

.303 ENFIELD POINT-BLANK ZERO TRAJECTORY
(Distance in Yards)

	50	100	150	200	250	300	350
Sight @ 275 Yards	+3"	+5.8"	+6.7"	+5.7"	+2.5"	-3.1"	-11.4"
Sight @ 250 Yards	+2.6"	+4.8"	+5.2"	+3.7"	0	-6.1"	-14.9"

The recommended 275-yard scope setting was pretty effective—except at 150 yards, where, if aimed at the center of a target's face, the bullet will strike his helmet or, depending on his size, possibly fly completely over his head. With the benefit of modern software, I think you'll agree a 250-yard elevation setting would have been more useful.

1 1/2-inch group at 100 yards." That pamphlet also said this system, designated the No. 3, Mk. I (T) (the "T" standing for telescope), had a maximum range "up to about 400 yards."

Hardly had the cosmoline preservative been cleaned off these World War I Enfields than a new sniper system went into production, which was to be the standard for the rest of the war, the .303-caliber Short Magazine Lee-Enfield (SMLE) No. 4, Mk. I (T). Other than its scope, this rifle was distinguished by its raised wooden cheekrest, installed to better align the shooter's eye with his scope. As with all Lee-Enfields, the buttstock was interchangeable with three different lengths to best fit it to the shooter.

Though modern, the system's 3x No. 32 Telescopic Sight was not exactly new, having been developed in 1937 for the Bren light machine gun. It had a 1-inch diameter tube, a 19mm objective lens,



A Scottish sniper with Britain's World War II sniping workhorse, the SMLE No. 4 Mk. I (T).



Selected for accuracy, the No. 4 Mk. I (T) resembled the standard SMLE except for its scope and wooden cheekrest.

and eye relief of 2 1/2 inches. A heavy instrument weighing 2 1/2 pounds with mount, the No. 32 proved reliable and stood up well to field conditions. Its ranging knob had settings from 100 to 1,000 yards, with audible click increments of 50 yards. The earliest model, the No. 32, Mk. I, had 2 minute of angle elevation adjustments—meaning one click moved the elevation 2 inches at 100 yards—while

the later No. 32, Mk. II had finer, 1 minute of angle increments, and the Mk. III version added lens coatings for better light passage.

Most often, British snipers fired standard Mk. VII .303-caliber ammunition, but some preferred to scrounge the Mk. VIIIz loads, which contained boattail ("streamlined") bullets. Both projectiles weighed 174 grains, but the more-efficient boattails—intended for the Vickers machine gun—better retained velocity, flying a bit faster and farther than the standard bullets.

Rounding out the British sniper's gear was the 20x Scout Regiment telescope, a three-section spotting scope that extended like an old-fashioned spyglass, or the two-section Ross telescope, of 15x. Though of antiquated design, both worked well and gave British sniper teams an observation advantage over the Germans, who spotted with binoculars, typically of only 6x. A telescope enthusiast, British Captain Shore insisted that "there is a terrific amount which the telescope will pick up, define and determine which no naked eye could possibly see."

The No. 4, Mk. I (T) sniper system was officially adopted on 12 February 1942, but already a number of these sniper weapons had been issued, with priority to Commando and paratroop units. The Canadian Army also adopted this system and manufactured the No. 4, Mk. I (T) at the Long Branch factory in Ontario, incorporating the No. 32 scope and a variety of others, including the American Weaver 330C and Lyman Alaskan.

GERMANY

German Sniper Selection and Training

Nazi Germany's teenage boys first learned rifle marksmanship as members of the Hitler Youth organization, the party's paramilitary answer to the Boy Scouts. The Hitler Youth Sharpshooter Badge (*Hitler Jugend Schiessauszeichnungen*), awarded in three categories, recognized these boys as a good shot, marksman, or champion shot and helped prepare them for military service, while also identifying the most promising shooters. Once they were in army basic training, superior marksmanship was recognized daily, with the top shooters receiving baseball card-like pictures of hunters and wartime jägers, which the young trainees proudly hung above their bunks. The trainers emphasized shooting and duly noted the top marksman graduates in their records, with recommendations for sniper training. A German sniper training officer, writing in 1944, said the prospective sniper's qualities included "a passion for the chase [and] fanatical love of firearms."



The Hitler Youth Sharpshooter Badge.



Waffen SS snipers in training.



A German sniper student wears a wire mesh "Indian bonnet" for camouflage.

Germany operated a variety of sniper courses during World War II, usually four weeks in length. Eastern Front soldiers attended the sniper school at Training Area Seetaler-alpe, the German army's alpine and cold-weather training site, 40 miles west of Graz, Austria. The Army High Command's OKW course (featured in the World War II training film *Snipers in Action: The Unseen Weapon*) was held in Bavaria, in southern Germany, presumably for soldiers based in Italy and on the Western Front. The Air Force High Command, which oversaw Germany's paratroop units, had its own sniper course, likely co-located with the Fallschirmjäger's Stendal

Parachute Training School, 60 miles west of Berlin.

Sniper students usually were volunteers, but it's likely that many were "volunteered" by their commanders. And, interestingly, on-the-job experience did not qualify a soldier; famed Eastern Front sniper Sepp Allerberger, for instance, was sent off to the course at Seetaler-alpe, despite having already killed 27 Russians.

School subjects were typical, with emphasis on range estimation, marksmanship, target detection, and camouflage. Unlike British or American sniper training, however, the German sniper was taught to employ a handmade shooting stake or monopod to cradle his forearm when firing prone.

German Sniper Rifles

Most German snipers were armed with K-98 Mausers "selected for accuracy" by a well-defined procedure. As each lot of K-98s was finished, the rifles were test-fired at 100 meters. If using open sights, rifles achieving three-round groups in a rectangle no more than 3 1/4 inches (80mm) x 5 1/2 inches (140mm), with a group less than 4 3/4 inches (120mm), were set aside for sniping. If a scope was used, the maximum three-shot group tightened to 2 3/4 inches (70mm), or a five-shot group of 4 1/8 inches (105mm). Of the set-aside rifles, *the most accurate* were scoped for sniping use, with the number varying depending on how many were needed from that lot. Thus, some batches of sniper weapons may have been extremely accurate and others only acceptably so.

Other than installing a telescope mount, the only other modification was refining the trigger so it was crisp, with a minimum pull of 3 1/2 pounds and maximum of 5 1/2 pounds.

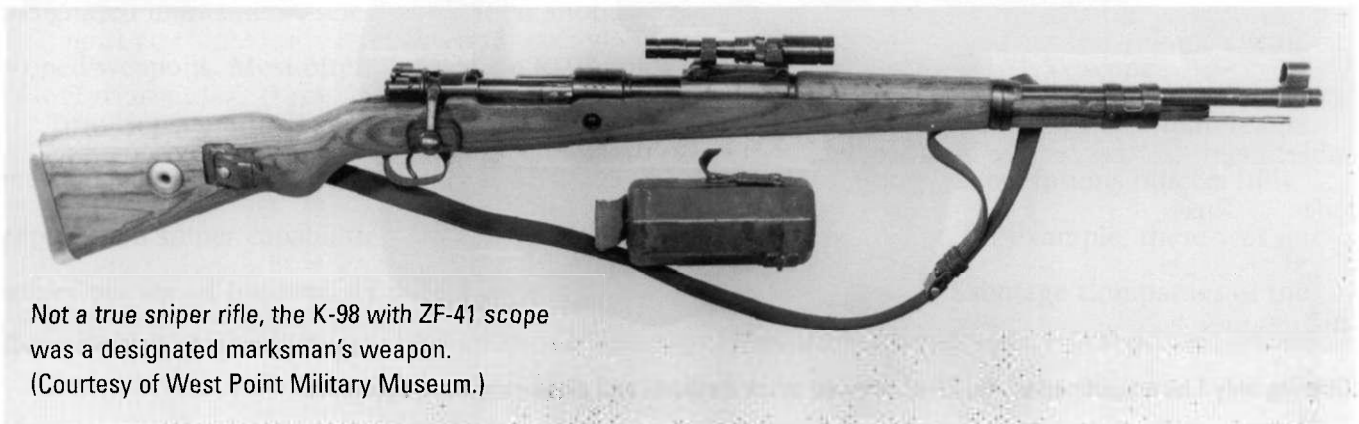
German Sniper Optics

Atop the K-98, the Germans mounted two distinct types of scope, either the low-powered ZF-41 Extended Eye Relief scope, positioned well forward of the receiver, or a conventional, fixed-power scope of 4x or 6x.

The ZF-41, offering only 1.5 magnification, was not a true sniperscope, and the man armed with



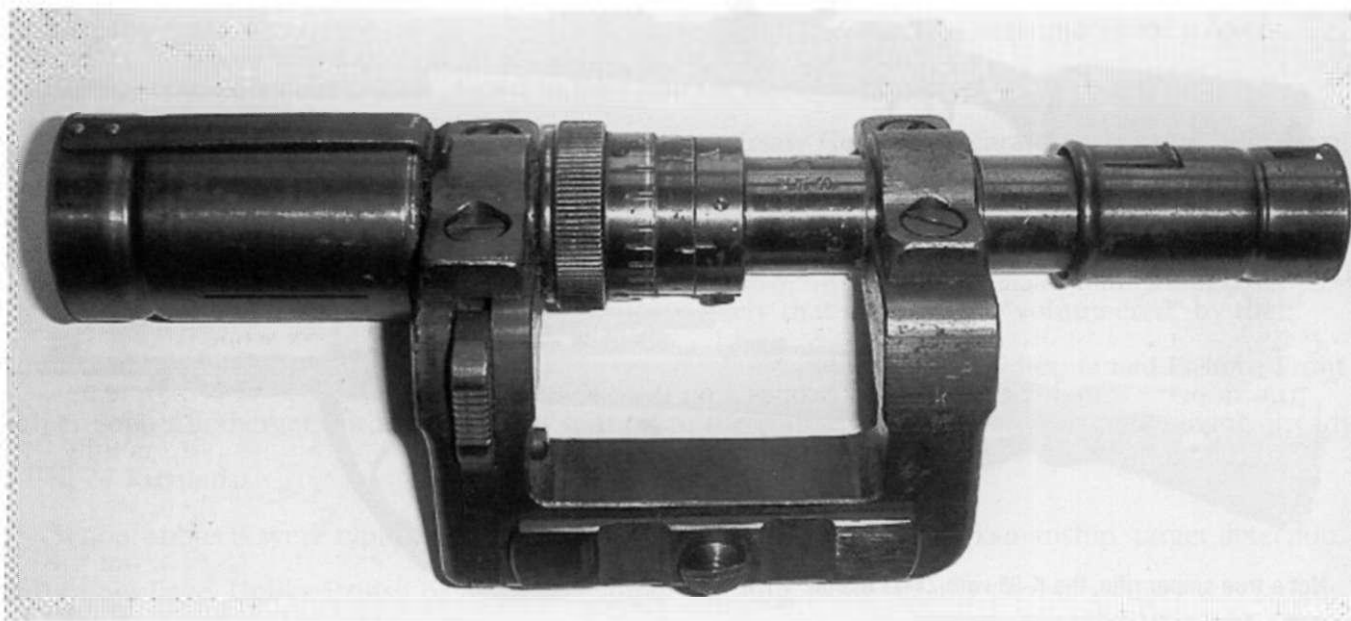
Germany's primary World War II sniper weapon, the K-98 Mauser rifle, with a quality 4x scope.



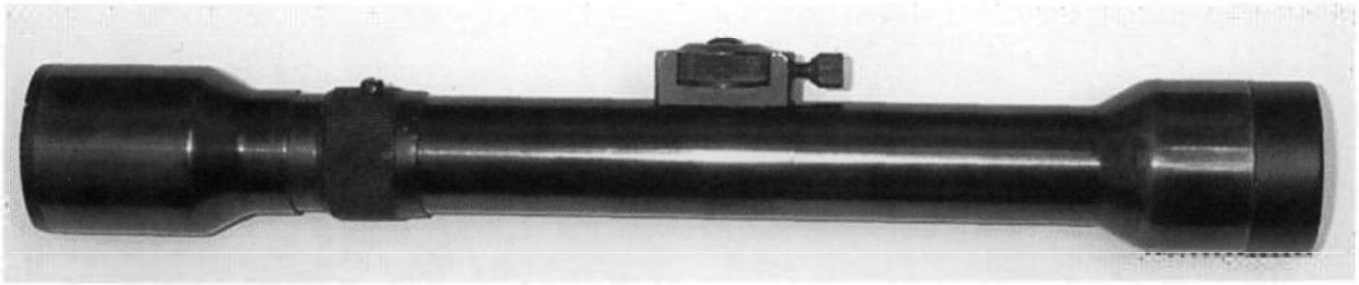
Not a true sniper rifle, the K-98 with ZF-41 scope was a designated marksman's weapon.
(Courtesy of West Point Military Museum.)

it was not actually a sniper, nor was he intended to be. Soldiers armed with ZF-41 scoped Mausers were better-than-average marksmen belonging to ordinary infantry squads and platoons, but, because of this optical advantage, they could fire well-aimed shots in support of the soldiers around them. Although this scope was of low magnification, its positioning well forward enabled a German marksman to acquire his target and fire very quickly—much faster than a higher-magnification scope and more precisely than using open sights. When I was a precision rifle instructor at Gunsite Training Center, I fired a similar scoped weapon, Jeff Cooper's Scout Rifle—undoubtedly inspired by this German design—and found it impressively fast to fire out to about 250 yards. For relatively close-range shooting, it was awesomely effective. The Germans must have thought so, too, because by 1942 some 6 percent of K-98 Mausers were fitted with ZF-41 scope bases. Optimistically, the ZF-41's elevation ring allowed firing to 800 meters.

Germany's true sniperscopes were quality civilian designs provided by a variety of manufacturers, including Zeiss, Hensoldt, Kahles, and Ajack, all incorporating extremely high-quality lenses that were superior to those made in Allied countries. Not only was this glass superbly polished, but microscopic imperfections were smoothed with additional coatings of metallic fluoride, allowing better light transmission (with superior target clarity) than ever before achieved. Further, these scopes also sported wider tubes and larger objective lenses (up to 50mm), which further increased the amount of light reaching a shooter's eye. Combined, this allowed the German sniper better



Offering only 1.5x magnification, the ZF-41 allowed quick medium- and close-range engagements.



A typical German sniperscope, this 4x Wetzler featured quality glass and a large objective (forward) lens.

clarity and a longer shooting day, with low-light shots at dusk and dawn, when ordinary eyesight diminished and soldiers mistakenly believed they were concealed in the murkiness. This was a major advantage.

Another German sniper's advantage was the magnification of his scope. Allied scopes offered 2.5x and 3x magnification, while most German scopes had 4x, and later, a significant number were 6x. Again, this offered a dramatic improvement for long-range shooting, with Eastern Front snipers Matthais Hetzenauer and Sepp Allerberger reporting "the six-power telescopic sight was good up to 1,000 meters."

The German sniper's primary optical disadvantage resulted from his reliance on binoculars rather than a more powerful spotting scope for observation and target detection. Every German sniper was issued binoculars, mostly 6 x 30mm, although some snipers, such as Hetzenauer, had bulkier but more powerful 10 x 50mm binoculars.

German Sniper Organization

From the start of the war, snipers were organic to German infantry units. Each infantry battalion had a "sniper group" with as many as 22 men; of these, six remained under battalion control while the rest were attached to line infantry companies. Additionally, each infantry company had several designated marksmen—selected for their shooting abilities, though not sniper-trained—outfitted with scoped weapons. Most often these were K-98 rifles with the compact ZF-41, 1.5x scope.

True snipers, armed with 4x and 6x scopes atop their K98s, always operated as two-man teams, with one shooting while his partner spotted. German airborne and special operations officers fully appreciated sniper capabilities and included extras in their ranks so that, for example, there was one sniper per squad (making six per company) in the Special Missions and Sabotage Companies of the secretive Brandenburg Regiment.



A two-man German sniper team: one man shooting while the other spots with binoculars, not a spotting scope.

UNITED STATES

U.S. Army Sniper Selection and Training

Like some British officers, many senior U.S. Army officers thought that sniping may have proved useful in the Great War, but it offered little utility 20 years later in the blitzkrieg era. Unappreciative of a sniper's need for sophisticated skills—only one of which is advanced marksmanship—it was assumed that any training requirement could be handled by his unit. Thus, the U.S. Army did not organize snipers schools but rather delegated to individual commanders the authority to select and train their own snipers.

This unenlightened policy meant that many units had no snipers, despite having the weapons to arm them; other units had “snipers” who’d never before even seen a rifle scope. A good indicator of the often low regard for such snipers was a Bill Mauldin cartoon in which an officer waved a GI sniper down from a tree, saying, “Yer wild, happy, free life is over. Tomorrer ya start luggin’ ammo agin!”



A U.S. Army sniper (right) tests experimental camouflage, 1942.

Anyone might become a sniper. When Sergeant Arthur Duebner arrived in Belgium as a paratrooper replacement for the 82nd Airborne Division, he found that “weapons seemed to be in very short supply and all that was available was an old ‘03A4 Sniper Rifle,’ and that was what they issued me.” Sergeant Joe Curtis, with the 84th Infantry Division, carried both his unit radio and a Springfield sniper rifle—he was both a radio operator and a sniper, although he’d received no special training whatsoever.

Yet this is an incomplete picture. Some fortunate units had former NRA competitive riflemen who knew *exactly* what to do, and some platoon leaders and company commanders wisely appointed their best shots as snipers. Private First Class James McGill, a freckle-faced Philadelphian, was appointed a sniper by his platoon lieutenant in the 34th Infantry Division and soon verified the wisdom of that decision. During the Battle of Monte Cassino he expertly eliminated a German machine gunner who’d pinned down his platoon—at 600 yards—with a single well-aimed round, witnessed by a correspondent from *American Rifleman* magazine.

Snipers found their strongest supporters where there were senior commanders with a marksmanship background. Colonel Sidney Hinds, commanding the 2nd Armored Division's 41st Armored Infantry Regiment, for instance, was a prewar NRA competitive rifleman who'd earned a Gold Medal at the 1924 Olympics and twice made the President's



Some U.S. Army divisions ran their own sniper schools. This sniper student is firing at the 45th Division school in France in early 1945. (Courtesy of Robert Bruce and National Archives.)

Hinds saw to it that six properly outfitted snipers were in each of his infantry companies, even if he had to "scrounge" their scopes himself. "Colonel Hinds has personally observed the progress of his men on the range and has selected his snipers from the expert groups," reported *American Rifleman* correspondent Bill Shadel.

"The ideal sniper," Colonel Hinds told Shadel, "is a combination of eagle eyes, Job-like patience, Indian stealth, Solomon's wisdom, and rabbit-like agility. In addition he's a super rifleman. Put 'em all together, and you've got a damned good soldier."

Colonel Hinds ran his own five-week sniper school. After honing their shooting skills on a known-distance range, his sniper students focused on range estimation and then unknown distance firing, hitting targets up to 900 yards away. "After a few weeks of field training," Colonel Hinds said, "the sniper trainee can hit a man at 600 yards with the first shot." Interestingly, to earn their diplomas, his soldiers had to pass an infiltration (stalking) exercise under live rifle fire.

U.S. 1903A4 Springfield Sniper Rifle

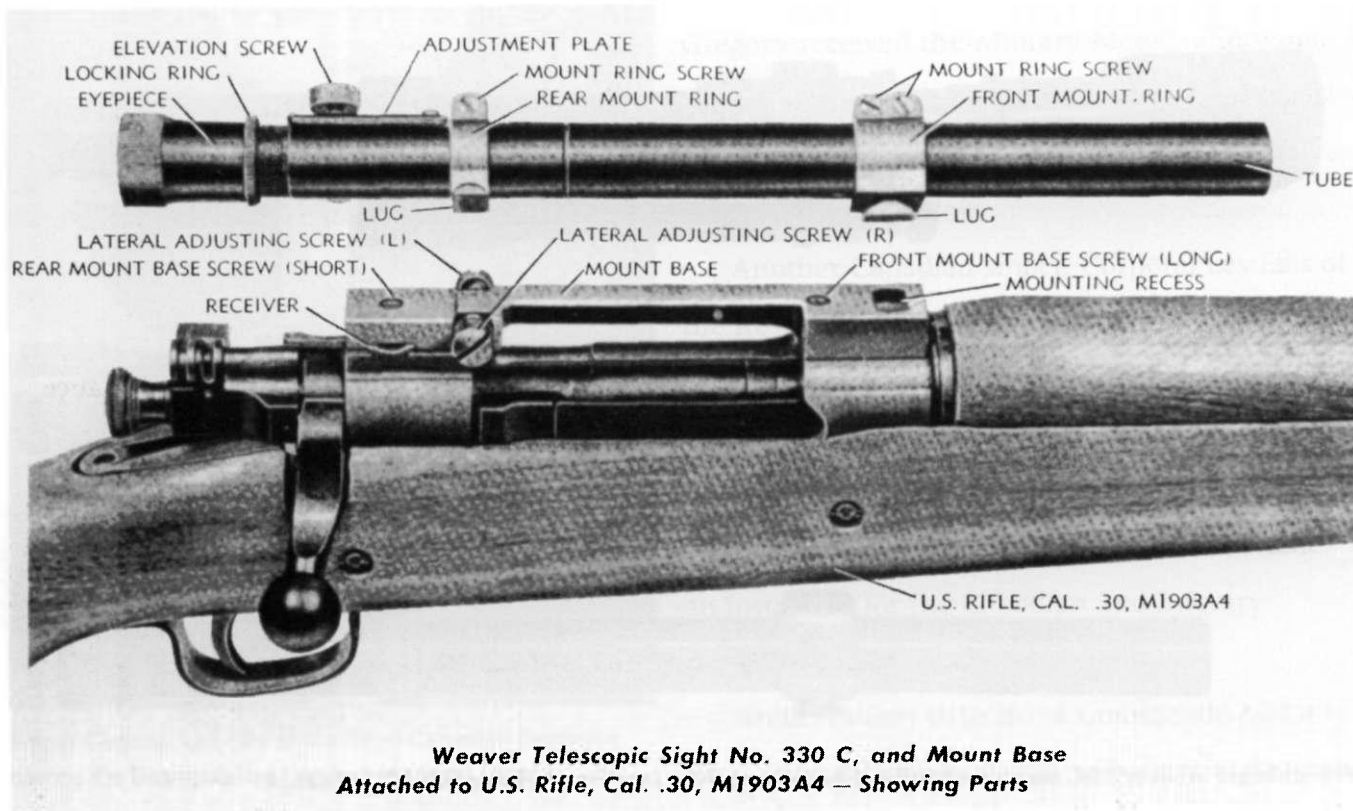
Colonel Hinds and other U.S. Army snipers were armed with the 1903 Springfield rifle, renowned for accuracy and reliability. Manufactured by Remington Arms, these rifles began as standard, new-

production 1903A3 rifles, which were selected for accuracy and then configured into the A4 version. Unlike the German selection procedure, these rifles were not test-fired but had their barrels carefully gauged, with an acceptable ream diameter of .300 to .301 and rifling just .308 to .309—impressively tight bore tolerances.

The selected rifles then had metal milled from the bolt handle to allow clearance for the scope and a recess cut into the stock for the reshaped bolt to close properly. The rear sight was excluded to allow installation of an off-the-shelf, civilian Redfield Junior one-piece scope mount. Likewise, forward of the receiver a slot was milled to fit the Junior mount. Unlike other Springfields, the A4s had no front sight blade and (in most cases) a distinctive Type C pistol grip stock. Remington built more than 25,000 1903A4 sniper rifles for the Army and Marine Corps, with the last completed in March 1944.



The Springfield 1903A4 sniper rifle with 2.5x Weaver 330C scope. (Courtesy of West Point Museum.)



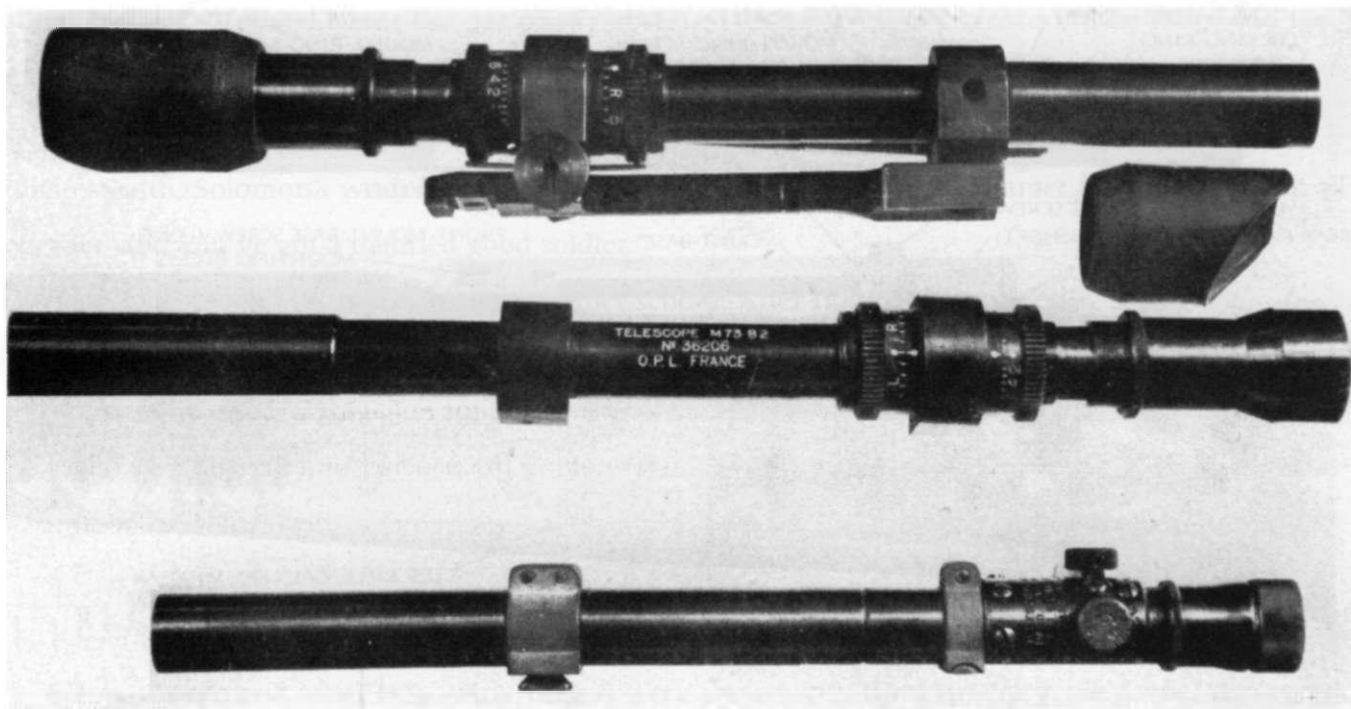
**Weaver Telescopic Sight No. 330 C, and Mount Base
Attached to U.S. Rifle, Cal. .30, M1903A4 — Showing Parts**

For a scope, the Army authorized both the Weaver 330C and the Lyman Alaskan, although only the Weaver actually saw service. While the Lyman was a higher-quality instrument with a wider tube, Lyman was simply so overcommitted to other higher-priority war contracts that it could not provide the scopes.

The scope that did see service, the Weaver 330C, was designated the M73B1 by the Army. Featuring a 3/4-inch tube that offered 2 1/2x magnification, the Weaver had 15 minutes of angle per rotation, clicked off at 1/4-minute of angle increments; in other words, one click equaled 1/4-inch at 100 yards.

To set up his scope, the sniper first aligned the tube in its mount, somewhat like borescoping. To achieve a rough 100-yard elevation, he inserted thin metal shims below the front mount base and, once this was acceptably close, adjusted windage in the rear mount using lateral adjustment screws. For the final, precise zero, he used the scope's internal elevation and windage. After zeroing, the sniper could reset his elevation for longer-range shots, but the scope lacked a means of determining how much he'd reset the elevation dial, which could lead to confusion and the need to rezero his weapon. Most snipers probably lacked the technical knowledge to know how to do this.

Instead, Army Technical Manual 9-270 advised to simply set the elevation for 200, 250, or 300 yards and "then hold *over* the desired point of impact of the bullet at longer ranges and *under* for shorter ranges. The amount of *hold-over* or *hold-under* is determined by practice." Very much like the British point-blank zero (cited earlier), this allowed fast engagements but at the cost of reduced precision in shot placement.



The standard Weaver 330C scope (bottom) and two views of the rare French-made OPL M73B2 scope.

The OPL Company manufactured an extremely rare, improved 3x version of this scope, the M73B2, in 1945 in the newly liberated France for the U.S. Army. In most ways similar to the Weaver, the M73B2 has the distinction (to the best of my knowledge) of being the first rifle scope ever to incorporate an illuminated reticle for low-light shooting—though this feature was introduced too late in the war to be fully exploited.

SNIPERS IN ACTION: DIEPPE

On 19 August 1942, some 5,000 Canadian soldiers and British Commandos, plus a detachment of 50 U.S. Army Rangers, conducted a large-scale amphibious raid on the French port city of Dieppe. Although this “reconnaissance-in-force” proved Canada’s bloodiest day of the war—with nearly half the Canadians killed or captured and another 2,400 wounded—American, British, and Canadian snipers nonetheless demonstrated great effectiveness.



Sniper Corporal Les Ellis of the Royal Canadian Regiment earned the Distinguished Conduct Medal at Dieppe.

The oldest Canadian sniper at Dieppe was Corporal Joseph Gregory, who likewise had been a combat sniper during World War I. Credited with “gallant and distinguished services,” Gregory received the Military Medal, and when the middle-aged sharpshooter returned to Canada (with considerable fanfare), his story was told in *Time* magazine.

Another Canadian sniper, Corporal Les Ellis of the Royal Canadian Regiment, earned the Distinguished Conduct Medal, second only to the Victoria Cross, for engaging a German outpost overlooking the beaches and dragging a badly wounded man to cover. Afterward, Ellis became an instructor for the Canadian 2nd Infantry Division’s Sniper School.

British raiders with No. 4 Commando had a supporting mission to destroy a battery of German

guns at Varengeville, on Dieppe's right flank. This elite 300-man force included 20 snipers and the American Rangers. One Commando sniper, Lance Corporal Richard Mann, was awarded the Military Medal for "killing a great number of the enemy gun crews," his citation read. "His sniping was so accurate that it became impossible to service the guns." And, indeed, No. 4 Commando entirely succeeded in its mission.

Part of that success was attributed to several American snipers among the Rangers, drawn from the newly created 1st Ranger Battalion. These were the first American troops to fight the Germans in World War II. One Ranger, Sergeant Frank Koons, likely fired the first shot by an American in Europe and, along with several Commando snipers and five other Rangers, engaged the German battery from a nearby barn.

"I was in the barn with men armed with a Boys anti-tank rifle, which fires a .55-caliber bullet," Koons later told a historian. "We were providing supporting fire to the men attacking the guns. This was the best combat I had ever been in." The British government recognized Ranger Koons' gallantry and awarded him the British Military Medal, presented by Vice Admiral Lord Montbatten.

The British Army's official after-action report especially emphasized the performance of snipers at Dieppe:

"A special mention must be made of the snipers. It was made very clear to the Germans that a stalker with a quick and sure eye, cunning fieldcraft, and the sniper's rifle with its telescopic sight, can do much to swing the battle against them. . . . Three men with sniper's rifles did excellent work. One of them, wearing suitable camouflage on his face and hands painted green, crawled forward to a fire position 120 yards from the gun emplacement. . . . All three enemy MG [machine gun] positions [on the eastern flank] were successfully silenced by the accurate shooting [of three snipers and Bren guns]."

The Dieppe experience inspired the Canadian Army to add a sniper platoon to each infantry battalion and influenced the British to authorize 38 snipers in each paratroop battalion and 32 in glider battalions.



Snipers of No. 4 Commando in training.

The Lovat Scouts in World War II

The Lovat Scouts, renowned for their scouting and sniping in the Boer War and World War I, spent much of World War II preparing for missions that did not unfold. Although Lord Lovat left the unit to become a Commando officer and achieved considerable distinction, and senior Lovat officer Major F.A.H. Wills (later Lord Dulverton) and several noncommissioned officers founded the British Army's School of Sniping and Fieldcraft, the bulk of the unit either defended threatened areas that were not attacked or trained in the British Isles and Canada.



Lovat Scouts camouflage themselves for a mission behind German lines in Italy, 1944.

Early 1944 found them in the Canadian Rockies, undergoing extensive winter warfare and ski training, perhaps in preparation for a secret mission in occupied Norway. The purpose was never revealed to them, but so challenging was their training—including a winter ascent of Columbia Mountain (12,994 feet, the second-highest peak in the Canadian Rockies)—that a British officer wrote, "I believe that the Lovat Scouts are now the toughest and hardest battalion in the entire British Army."

Paralleling the 1st Special Service Force, whose Norway mission was cancelled, the Lovat Scouts instead were deployed to Italy, where their mountaineering and sniping expertise made them the deadliest foes German alpine troops could face. Of their fighting in Italy, it was written, "They stalk the Hun with the same skillful stealth as in happier times they stalked the deer." This was how "these tireless mountain scouts" spent the remainder of the war, an invisible, relentless foe, running reconnaissance and sniping patrols behind German lines.

SNIPING IN ITALY

Sniping abounded on Italy's mountainous terrain, where the high ground repeatedly favored German defenders during that bloody two-year campaign. Allied troops encountered especially proficient German snipers on Sicily, apparently belonging to a parachute regiment. As one account records, these paratroop snipers

"made some really fine shooting at ranges of 600 yards. They stuck to their positions and kept up their brilliant shooting even when subjected to heavy shellfire. They were, of course, well dug in [and when] driven out by advancing troops, the majority of these snipers got away by the use of excellent fieldcraft."

In one incident, three German snipers effectively blocked the American advance and proved so



German artist Willy Herman painted this portrait of Private Hortnek, a 73rd Infantry Division sniper.

General Marshall's Private Grief

America's highest-ranking officer during World War II—holding a position later called the Chairman of the Joint Chiefs of Staff—was five-star General George C. Marshall, to whom much of the Allied victory can be attributed. Whether mustering the country's industrial strength, settling disputes between senior generals, or advising strategy to Presidents Roosevelt and Truman, General Marshall was noteworthy for placing the good of the country and the war effort above his own interests.

These qualities extended to personal relations with his adopted stepson, Allen Brown, after the young man joined the Army. Despite a great fondness for the youth, the general was so intent about Brown's "earning his own way," as Marshall put it, that he did not attend his stepson's graduation from Officer Candidate School and went out of his way to all but conceal their relationship. When Lieutenant Brown deployed overseas with his armored unit, Marshall "let it be known to the few who realized his relationship . . . that he was to receive no favors and that any senior officer recommending him for promotion would have his own credentials closely examined."

On 29 May 1944, Lieutenant Brown's tank was in his battalion's vanguard heading toward Rome when he halted near the village of Velletri. Opening his hatch, Marshall's stepson raised his head and lifted binoculars to survey ahead. Hiding in a nearby building, a German sniper fired one round, and instantly Lieutenant Brown slumped down, shot dead.

The sniping death of General Marshall's favorite stepson would have made delightful grist for the Nazi propaganda mill, but the general said nothing, continuing to focus on his responsibilities, refusing to publicly acknowledge his enormous private grief. As ever, he put the interests of the country and the war effort above his own.



Five-star General George C. Marshall, America's most senior officer in World War II.

difficult to dislodge that an astonishing 500 rounds of 155mm artillery were required to clear them out—and, even then, they may merely have withdrawn.

This effectiveness continued on the Italian mainland, where, for instance, a single British infantry company fighting at Carroceto lost all its officers and senior noncommissioned officers to enemy snipers. "These snipers worked well forward of their line," a British report says, "and reserved their shooting for targets wearing field glasses, a soft cap, or carrying a map instead of a rifle or carbine."

Tommy Prince, Ojibwa Scout-Sniper

Like Canada's acclaimed World War I Native American snipers, Thomas "Tommy" Prince was a product of his country's remote interior. An Ojibwa of the Brokenhead Band, he grew up on the heavily wooded eastern shore of Manitoba's Lake Winnipeg, supporting himself by trapping and logging.

In 1940, at age 24, Prince joined the army and volunteered for Canada's first paratroop battalion. These paras soon merged with U.S. Army paratroopers to found the famed 1st Special Service Force—the "Devil's Brigade"—a joint Canadian-U.S. commando unit that specialized in mountain and winter warfare. After extensive training in Montana, the Force shipped out for Europe to fight in Italy and France. "All my life," Prince later explained, "I had wanted to do something to help my people recover their good name."

An expert marksman and "superb in fieldcraft," to whom "swift, silent [and] unseen movement came naturally," the Ojibwa warrior soon was appointed a scout-sniper. Although Prince sniped his share of enemy, it was his scouting that especially garnered fame. Prince sometimes wore soft leather moccasins, and more than one account describes his slipping into German positions in the dark of night and either stealing German boots to confound the troops or quietly slitting a throat for shock effect when the dead man's sleeping comrades awoke. In such instances, a comrade recalled, Prince "moved just like a shadow."

In Italy, all alone he crept a mile beyond Allied lines and spent three days calling artillery on enemy positions from an abandoned farmhouse. When an exploding shell cut his communications wire, he disguised himself as an Italian farmer and pretended to hoe a field in full view of the enemy to find and splice the cut. His artillery fire was credited with destroying four German tanks, along with a number of other targets. In southern France, he led a two-man recon that in 72 hours traveled an amazing 20 miles into German-held territory to locate enemy outposts, gun positions, and a bivouac area, which was later successfully overrun.



Sergeant Tommy Prince, famed scout-sniper of the "Devil's Brigade" and the Canadian Army.

"Sgt. Prince's courage and utter disregard for personal safety were an inspiration to his fellows and a marked credit to his unit," reads his British Military Medal citation. He was also awarded the U.S. Silver Star, the nation's third-highest valor decoration, one of only 59 Canadians given that medal in World War II. King George VI ceremoniously pinned both medals to Prince's chest at Buckingham Palace.

When the Korean War erupted in 1950, Sergeant Prince again answered the call, volunteering as a sniper with the Princess Patricia Canadian Light Infantry. Although he was adept at sniping against the North Koreans and Chinese, the bitter cold got to him, and arthritis required his evacuation to Canada. Yet he volunteered for another combat tour and was wounded during heavy fighting in November 1952. By the war's end he was Canada's most-decorated Native American from World War II and the Korean Conflict.

In 2001, some 24 years after Tommy Prince's death, Indian groups, veterans organizations, and his family raised \$75,000 to buy back his awards from a private collector. Today the great scout-sniper's Military Medal, Silver Star, and other decorations reside at the Manitoba Museum in Winnipeg, not far from where he grew up. A Winnipeg park and a street also are named for him, while the Brokenhead Band erected a statue of Sergeant Prince on their reserve at Scanterbury, Manitoba.

At Buckingham Palace, Lieutenant Colonel Jack Akehurst (left), senior Canadian officer of the Devil's Brigade, examines the Military Medal presented to Prince (right) by King George VI. (National Archives of Canada.)



A Novel Way of Adjusting Fire

During the Italian Campaign, former NRA competitive long-range shooter Robert Sears employed a novel means of adjusting rifle fire.

Captain Sears, an artillery forward observer, saw that an American infantry company in the valley below him was pinned by a distant German machine gun, firing from a well-concealed position roughly 800 yards away. Through his 20x spotting scope, Sears clearly could see the machine gun crew, but his accompanying sergeant, also a superb marksman, saw only trees through his Springfield rifle's open sights. How could he fire accurately on them?

Then Sears recalled an old adjustment technique, which he called "a reference target." Not far from the enemy machine gun crew was a distinctive tree, at which the sergeant could aim with certainty. This became their reference target.

Aiming precisely, the sergeant fired at the tree. Sears spotted where the bullet impacted on the facing hillside, a good ways from the machine gun. Instead of adjusting windage and elevation to aim at the machine gun—which the sergeant couldn't see anyway—he kept aiming at what he *could* clearly see, that tree, his sight adjustments shifting his rounds to the gun crew! Three times he fired and adjusted, as Major Sears talked his well-aimed shots into the machine gun nest, all while aiming at *that* tree, until his .30-06 bullets fell directly on the enemy position, killing several Germans and forcing the others to retreat.

Many soldiers arriving in Italy were green, unaccustomed to combat and especially vulnerable to such seasoned snipers. A captured German sniper told his American interrogators of a “stupidity” that he’d seen kill “at least a dozen . . . soldiers”:

“Allied soldiers . . . upon coming to a sudden halt frequently remain in a kneeling position, simply waiting to be shot at instead of throwing themselves to the ground. Then, if nothing happens, they get up on the same spot where they were kneeling before and continue their advance. I think this is extremely dangerous, especially where the terrain is dotted with snipers, as it is in Italy.”

At the Battle of Monte Cassino, where tough German paratroopers had dug in along a mountainous ridge overlooking a key highway, German snipers took a major toll on American, British, Polish, and New Zealand troops. Cassino was “literally full of snipers and spandau [machine guns],” a New Zealand history notes. “They inhabit rubble and ruined houses. . . . Until Monastery Hill is in our hand the sniping problem will continue. It is not to be underrated . . .”

Sniping in Italy was not a one-sided fight, however. When a German 88mm gun blocked the



Indistinguishable from its rocky surroundings, this position is typical of those constructed by German snipers.



Canadian troops dodge a German sniper's fire in an Italian village.



Canadian sniper Private L.V. Hughes, 48th Highlanders, engages Germans near the Foglio River, Italy. (National Archives of Canada.)

Americans at Sicily's San Giuseppe Pass, Lieutenant J.K. Maupin of the 41st Armored Infantry Regiment led a group of riflemen and two snipers with 03A4 rifles on a flanking climb up a steep cliff until they could see the Germans, some 500 yards away. After eliminating a machine gun team, Maupin's men fired on the 88mm crew, which, along with some accurate mortar fire, forced the Germans to retreat. Not one GI had been lost in this precision rifle attack.

Platoon Sergeant E.L. Dean employed his 03A4 rifle repeatedly to counter enemy machine gunners in Sicily. Whenever German gun crews pinned or halted his soldiers, the 36th Division marksman took out targets up to 800 yards away. Likewise, Private First Class Gordon R. Bondurant, a sniper with the 36th Infantry Division, performed phenomenally in several engagements. When a German machine gun blocked his company's advance, he coolly shot the gunner; then, when the assistant gunner took over, he shot him; then another German manned the gun, and Bondurant shot him; two more Germans tried to man it, and they, too, fell to Bondurant's precisely placed fire. Each

was a one-shot kill, at an estimated 450 yards. On another occasion, during the assault on Mount Lungo, Private First Class Bondurant “kept such accurate fire on forty entrenched Germans that they were surrounded and captured.”

One of the war’s more remarkable long-range shots was made by an American officer at Italy’s Anzio beachhead. Through binoculars, he spotted two Germans sneaking along a drainage ditch toward an American patrol. One carried a submachine gun; the other had his jacket crammed with grenades. “If those Jerries weren’t stopped,” he realized, “the squad ahead of them might be wiped out.” Taking a prone position, he shouldered his scoped 1903A4 Springfield and carefully adjusted for great range—800 yards, he estimated. Taking aim at the leading German, he squeezed and—to his amazement—he blew to kingdom come! *His bullet had hit a grenade*, according to a war correspondent, instantly killing both enemy soldiers.

SNIPERS AT NORMANDY

From the moment that American, British, and Canadian troops waded ashore at Normandy, they were subjected to unrelenting sniper fire. “Here in Normandy,” wrote war correspondent Ernie Pyle, “the Germans have gone in for sniping in a wholesale manner. There are snipers everywhere. There are snipers in trees, in buildings, in piles of wreckage, in the grass.”

On Sword Beach in the British sector, Lieutenant Colonel D.H.V. Board had hardly got ashore when a well-aimed sniper’s bullet struck him dead. He’d commanded the 5th Battalion of the King’s Regiment (Liverpool). British Captain C. Shore watched an officer ride off in a jeep, its driver returning moments later with the officer slumped forward, “a neat hole in his forehead.” The driver called, “Sniper.”



These four Canadian snipers killed 101 enemy soldiers. They are (left to right) Corporal G.E. Mallery, Private J. Gray, Corporal B.B. Arnold, and Sergeant P.A. Rylaasden of the Queen’s Own Cameron Highlanders. (National Archives of Canada.)

Normandy's Sniper Killer

Some Americans fighting in Normandy thought little beyond personal survival, others sought to protect their buddies, and some saw the big picture of defeating Nazi Germany. To a few men, however, the war was a personal fight and killing the enemy a crusade of a different sort.

Such a man was U.S. Army Platoon Sergeant Frank Kwiatek. When war correspondent Walter Peters came upon him in the hedgerows, the 27-year army veteran was slicing a fresh notch in his rifle—his 22nd, representing as many dead Germans. Nineteen were enemy snipers, Kwiatek's favorite foe. "I like shooting snipers especially," the platoon sergeant explained, because "they're so sneaky," and then added, "to hunt snipers you must use your head."

Kwiatek's countersniper role had begun soon after landing, when his company commander needed a volunteer to eliminate a sniper that had shot several GIs and blocked the unit's advance. The World War I veteran crept around the German's likely position, spotted him, and readied to fire—then he noticed a second sniper up a tree. With two quick shots he disposed of both.

"When I kill a German, I want to look right into his eyes. I like to see him drop. When he drops, I can almost see my brothers smiling at me." And here was a hint at his motive.

A year earlier, Kwiatek's younger brother, Ted, a 21-year-old tank crewman, had been killed in Sicily. Shortly afterward another brother, 19-year-old Jerry, was killed in Italy. Since then Kwiatek's war had become a personal campaign. "Three more to go and I'll have settled the promise I made when they killed my brother Ted. Then I'll kill 25 more for my brother Jerry. I'm going to kill as many Germans as I can, because I hate the whole Nazi system."

His campaign was not always easy. During one countersniping effort, a GI accompanying Kwiatek rose above a hedge to fire, but the sniper shot first. "His brains splattered all over my face," Kwiatek recalled. "I was never so sick in my life."

Twice as determined, Kwiatek fetched Private First Class Floyd Roberts of Rising Star, Texas, and went back after the sniper. "Then I signaled to Rogers to lift the [dead GI's] helmet again in another position. When he did, I saw the Hun's helmet come up from behind a tree, then his shoulders. Then I let him have it. All it took was one shot. Those bastards don't give you more than one shot."

Throughout his unit, Kwiatek's vow was well known, but some wondered how it was affecting their platoon sergeant. "The only trouble is," one private observed, "he wants to finish off the war by himself. Every time I see him, he's looking at a tree. He's going to be a very sad man when the war is over and there are no more snipers to kill."



Determined to shoot Germans—especially snipers—U.S. Army sniper Frank Kwiatek had 22 notches in his rifle by June 1944.



A British sniper fires from a French window near Sword Beach.



A German sniper surrenders to an American soldier at Normandy, 9 June 1944.

Major Maurice Turnbull of the Welsh Guards, a champion sportsman who'd captained the rugby team at Cambridge and played on England's national team, went forward to survey German positions and "was killed instantly by a sniper's bullet."

Major A.F. Slatter, a company commander with the 2nd Battalion, King's Shropshire Light Infantry Regiment, similarly went forward to learn why his advance was held up in the seaside village of Beuville. A sniper's bullet struck his arm, sending him back to England just hours after he'd arrived in France.

Elsewhere in Beuville, a sniper fired with deadly precision from a church steeple, pinning down British troops. To the right of Lieutenant Harry Jones, the sniper head-shot a soldier, instantly killing him. Then the sniper shot the man to Jones' left and withdrew, leaving Jones wondering 50 years later, "To this day, I still cannot understand why I was not selected by the sniper as his target."

In the American sector, landing soldiers on Omaha Beach had to contend with cliffs and flanking high ground. Private John Hinton, a machine gunner with the 29th Infantry Division, recalled:

"We were drawing fire from a house about a half-mile to our left, the only house I saw. It must have been a good German sniper since we had a [machine] gun set up right on the top of the bluff and every time someone tried to get behind it he seemed to get them, in the arm or the leg. He got me in the right leg and couple of guys in the arm and he also killed one man."

Not far away, the 29th Division's unit physician, Captain Norval Carter, knelt to administer first aid to a wounded GI. Despite his helmet's prominent red crosses, a sniper shot him dead.

In the adjacent 1st Infantry Division sector, a chaplain, Captain John Burkhalter, and 10 GIs came

Women Snipers of Normandy

Some historians have thought it only a myth repeated secondhand by GIs, but, in fact, women snipers were present at Normandy—though I doubt they were school-trained and armed with scoped rifles. One eyewitness beyond repute is Dr. Wallace Graham, who landed on D-Day and in later years was personal physician to President Harry Truman. In a 1985 interview Dr. Graham recalled how, 12 days after landing, a sniper opened fire on his headquarters, and MPs managed to take the shooter alive. "It was a girl," he was astonished to learn, "a little French girl, and she'd been in love with a German officer. She was a pretty good shot."

Another source is a crewman's diary for the Royal Navy's LCT 221, which evacuated wounded soldiers and enemy prisoners to England. On 12 June 1944, it noted: "Hauled about 250 wounded today. Had one woman sniper in the bunch. She said she got 8 airborne troops before they got her and was proud of it." Unfortunately, the entry does not identify her nationality.

In another case we learn that the captured woman sniper was a Pole who "had lived in France for many years then married a German soldier who had been killed in Russia. After this she had come to Normandy as a cook for a German garrison along the coast." In this case, not only is there an official U.S. Navy account, but a Navy artist, Mitchell Jamieson, drew her interrogation aboard ship, his drawing fittingly titled "Polish Girl Accused of Sniping."



"POLISH GIRL ACCUSED OF SNIPING." A U.S. Navy artist drew this depiction of a female Polish sniper after she was captured at Normandy.

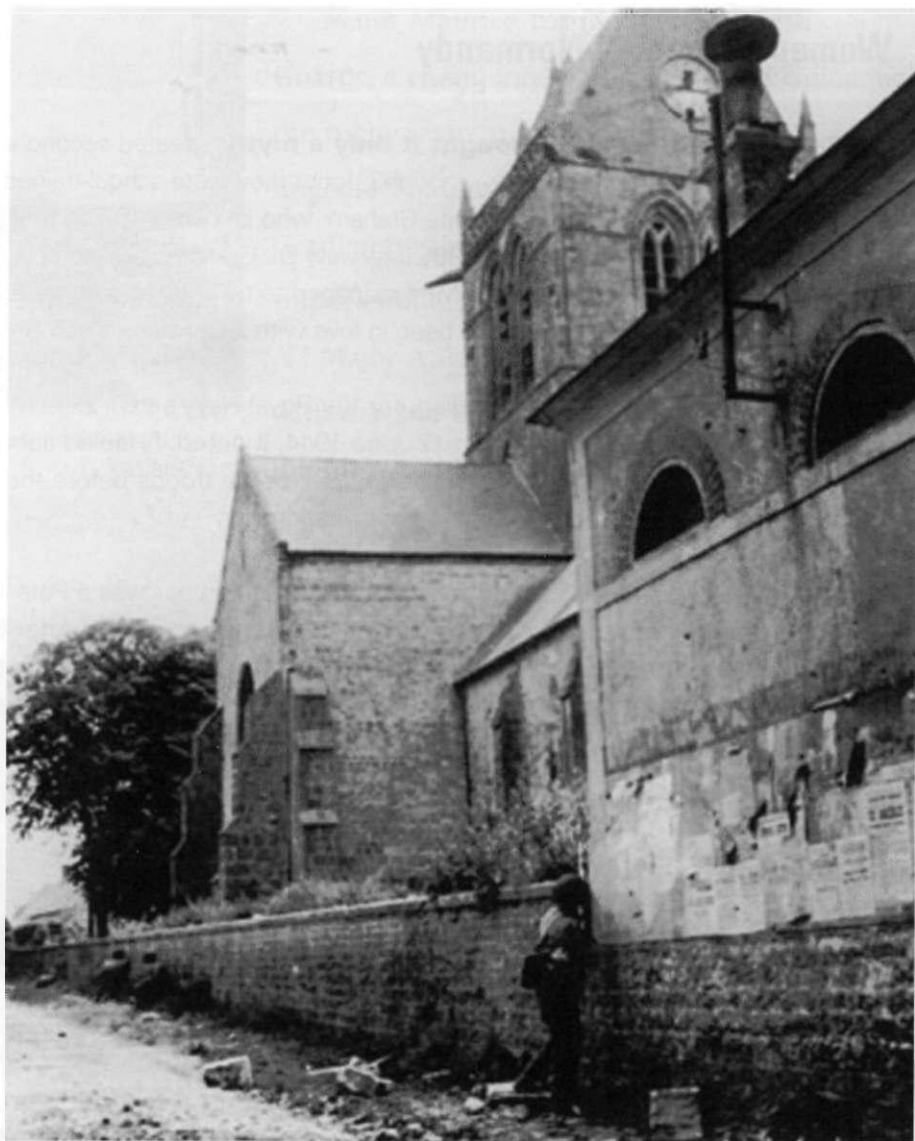
under sniper fire. "We all fell to the ground," he wrote home. "As we lay there hugging the earth . . . the birds were singing beautifully in the trees close by." That image grew grimmer when he looked over to an adjacent young soldier. "His eyes were open," Chaplain Burkhalter wrote, "but he was dead, hit by the sniper."

On a causeway behind Utah Beach, a 101st Airborne Division paratrooper, Private Joe Reilly, witnessed a medic treating a wounded soldier come under sniper fire. Reilly and other paratroopers shot back, riddling the sniper, but already the medic was dead.

Near the village of St. Mere English, 82nd Airborne Division Major Gordon K. Smith gath-

ered 10 paratroopers and headed west toward the beaches. In less than an hour, however, a sniper shot him in the abdomen. He ordered the paratroopers to leave him behind; later he was captured by the Germans.

"The snipers were everywhere," one account reported. "Officers, their chosen prey, learned to conceal all distinguishing marks, to carry rifles like their own men instead of their accustomed pistols, not to carry maps or field glasses, to wear pips on their sleeves instead of conspicuously on their shoulders." This did not always work; a captured sniper told interrogators of another distinction that drew fire: "We shoot the men with moustaches," he reported.



Knowing an enemy sniper is in the steeple above, an American paratrooper inches his way along a wall in St. Mere English.

The Germans had no monopoly on detecting leaders, however. An American sniper, Sergeant John Fulcher, found it simple to pick out enemy officers. "They wore sidearms," he explained, "and were always shouting and waving their arms."

Stay-Behinds and Hedgerows

While Allied reinforcements streamed into Normandy, the sniper battle continued, with German "stay-behind" snipers coming out of hiding to fire with no warning. *Combat Lessons No. 4*, a U.S. Army circular, reported that some snipers at Normandy remained hidden for two to five days. Several such gunmen were killed within sight of the 2nd Infantry Division command post, while "one sniper was shot down from a tree some 50 yards from the divisional headquarters."

In the British sector at Caen, one stay-behind sniper, Kurt Spengler, fought on heroically, single-handed from a well-identified position. Against all attacks he held out, even eating while shooting to sustain himself as he fought off the British. When other counters failed in this protracted fight, an artillery barrage finally killed him.

With the stay-behinds mopped up, the Allies began a month-long fight in Normandy's hedgerows. Since Roman times, Norman farmers had marked off their plots not with fences but rows of thick hedges, their tangled branches so interwoven that an animal could not squeeze through. From the air it resembled a gigantic checkerboard, with hedgerows bounding every field, offering perfect cover and concealment. "There is hardly anyplace where you can see beyond the field ahead of you," wrote Ernie Pyle. "Most of the time a soldier doesn't see more than a hundred yards in any direction. Every mile we advance there are dozens of snipers left behind us. They pick off our soldiers one by one as they walk down roads or across the fields."

Staff Sergeant John Polyniak, a squad leader



Legendary sniper Kurt Spengler, as depicted in a German magazine fighting to the death at Caen.

Audie Murphy, Countersniper

Audie Murphy, America's most highly decorated serviceman in World War II, fought German snipers several times, including a personal, one-on-one fight to the death. Though only 20 years old and slightly built, the young Texan possessed a heroic spirit, backed by impressive shooting skills and an almost intuitive grasp of tactics and terrain.

On 2 October 1944, shortly after Murphy received a direct commission to lieutenant, a German sniper shot the soldier beside Murphy. The wounded man's agonizing scream attracted enemy machine gun fire, which hit a half dozen of Murphy's comrades. The very next day, another sniper fired two well-aimed shots that instantly killed two more men and halted the young Texan's unit. Murphy boldly volunteered to go after the sniper, but his company commander required him to bring along three infantrymen.



Audie Murphy and the German sniper rifle he captured—the hard way. (Courtesy of Audie Murphy Research Foundation.)

Advancing toward the flank of the sniper's likely position, Murphy halted and ordered the three soldiers to stay there. "It was simply safer that way," he later explained. "With four men thrashing through the underbrush, the sniper would have been sure to spot one of us and perhaps kill us all."

Studying where his dead comrades had been and the angles of the shots that killed them, Murphy narrowed the sniper's position to a tight sector. "Snipers always move after making a kill," Murphy thought. "Finding his new position before he spotted me was my problem." To move silently, he removed his helmet and web gear and any nonessential equipment. He carried his favorite weapon, an M1 Carbine, light as a squirrel gun for quick shooting, with a 20-round magazine. That German sniper may have had a ballistic advantage at long or medium ranges, but Murphy intended to make this a short-range gunfight.

Inching his way along, he reached a large rock from which he suspected the earlier shots had been fired. "I sensed the presence of that sniper," he later recalled, "and he must have sensed mine." Then Murphy heard brush rattle just 20 yards away and noticed a camouflaged helmet lift ever so slowly. "He had accounted for a couple of my buddies, and I didn't feel anything as I squeezed the trigger," he recounted. "When the bullet hit him, I saw the expression on his face in the rifle sights. He didn't speak, but I had a hunch I knew what he was thinking in that last moment. He probably said in his mind, 'Lord, I am dying and I don't know why.' Then he collapsed like a rag doll and fell to the ground." Murphy seized the dead sniper's rifle and carried it back with him.

Three weeks later Murphy was signaling his men by hand when again, a sniper engaged his unit—and this time the crosshair was on him. "The bullet hit me in the right hip," he later wrote. While he lay in a ditch awaiting medical aide, the hidden sniper shot his empty helmet over and over, as if venting displeasure at only wounding Murphy. It took three months for Murphy to heal, leaving him with a slight limp. Despite that disability, he fought his greatest action on 26 January 1945, for which he would earn the Medal of Honor—after already having received the Distinguished Service Cross, two Silver Stars, and three Purple Hearts.

Murphy managed to bring his captured sniper rifle back to the States and sometimes took it out to show friends and neighbors, a fitting symbol of both his ability to outfight a dangerous foe and the nearness by which other snipers had almost taken that great hero's life.

with the 29th Infantry Division, was leading his men through the hedgerows when a sniper's bullet knocked him down with a serious hip wound. His assistant squad leader came running up to help, and "he was hit right in the neck," Polyniak remembered. "That was the end of him right then and there."

"One of the fatal mistakes made by infantry replacements was to hit the ground and freeze when fired upon," observed a 9th Infantry Division platoon leader. "Once I ordered a squad to advance from one hedgerow to another. During the movement one man was shot by a sniper firing one round. The entire squad hit the ground, and they were picked off, one by one, by the same sniper."

Sniper targets were not limited to individual infantrymen, however. The oldest regimental com-



Hidden in Normandy's hedgerows, German snipers took a heavy toll of Allied soldiers.

mander to die at Normandy was 58-year-old Colonel Harry A. "Paddy" Flint, a wry but inspiring leader. General George Patton once said of him, "Paddy Flint is clearly nuts, but he fights well." Colonel Flint had gone forward to personally observe a pillbox that was holding up his 39th Infantry Regiment's advance. "Paddy Flint, being the kind of man he was," recalled Private James Miller, "just jumped on a tank to go up there and take care of it. He went by us and waved as he went by, but the sniper got him just a few minutes later. But we got the sniper, too."

Another regimental commander, Colonel Martin D. Barndollar, commanding the 83rd "Thunderbolt" Division's 331st Infantry Regiment, met a similar fate. Just before his regiment was to attempt a breakout through the hedgerows, Colonel Barndollar went forward to observe the attack from an observation post. Not far away,



Normandy's hedgerow country proved a difficult honeycomb of hidden German snipers.



U.S. paratroopers warily pass the bodies of three Americans killed by German snipers near Normandy Beach.

Face obscured by a sniper's veil, Calgary Highland sniper H.A. Marshall takes aim at an enemy soldier.

a sniper from the 6th Fallschirmjäger (Paratroop) Regiment fired one shot, impacting just below Barndollar's heart. His death likely contributed to the 83rd Division's failed attack that day.

Some Allied snipers also performed well in Normandy's hedgerows. Private First Class Ray Register of Slocomb, Alabama, watched through binoculars as a German machine gun crew set up 350 yards away. Raising his 1903A4, he "fired four times, almost as fast as he could work the bolt, saw three Jerries go down for sure and believes he also got a hit on the fourth." He also shot and killed a heavily camouflaged enemy sniper hiding in a ditch.

Another American scout-sniper, Technical Sergeant James Foffen of Staunton, Virginia, was creeping through the hedges when he detected three Germans. He set his scope for 400 yards, knocked one down, then got another, while the third managed to escape.

Sergeant H. Currington, a Georgia native, peered through his sniperscope to the top of a hill some 300 yards away and spotted a German silhouetted against the bright sky. Drawing careful aim, he got his target, shot through the heart "right where I held on him," he told a newspaper correspondent.

Stay-Behind Snipers in Paris

It began as a joyous afternoon, the gayest in Paris since the city had fallen to the Nazis four years earlier. On 25 August 1944, General Charles de Gaulle entered the French capital, leading the triumphant 1st French Armored Division, the last of the Germans having pulled out the day before.

Tens of thousands of people filled the boulevards and squares, cheering, singing, waving flags, and hugging and kissing passing soldiers. Formerly covert members of the French Resistance came out of the shadows, openly brandishing the weapons they'd until then used only secretly. After De Gaulle's motorcade passed beneath the Arc de Triomphe, it entered City Hall Square and—*gunshots echoed everywhere!*

From a dozen rooftops and high windows, German (and French fascist) snipers shot into the crowds, stampeding the masses while bodies littered the wide square, breaking up the celebration and symbolically refuting this day of victory. One British journalist reported:



Celebrating Parisians flee for cover as hidden snipers open fire.

"The snipers were in church towers and steeples, at upper windows and along roofs. I turned onto the Rue Honore. This was for some minutes a hot sector. Snipers were shooting along the street from either end, and [French soldiers] were returning their fire both ways from the middle of the street."

In a few hours it was over, leaving one wondering what this act of terror had achieved, other than to give the French people more reason to hate the Nazis. As for the snipers, most were killed, but some were captured in civilian clothes and most likely put against a wall and shot.

SNIPING TO THE BITTER END

Right to the end of fighting on the Western Front, there was no letup in German sniping, and casualty lists included thousands of GIs who met their fate in a sniperscope.

Private Tim Lamb, an American paratrooper, made his first combat jump on 24 March 1945 and had hardly landed when a sniper shot him dead. Private Richard Gatts, likewise, was in his first day of combat in Luxembourg when a sniper killed the Cresap, West Virginia, native. Private Larry Kemp of Augusta, Georgia, was taking shelter with several GIs behind a tank when a sniper singled him out, killing him instantly. On 7 April 1945, Private First Class Robert Grissinger, 19, a commo man from York Springs, Pennsylvania, was killed by a sniper "while repairing his radio." Arthur Bettencourt, another commo man, was shot dead by a sniper while atop a pole fixing a phone line. On 14 April 1945, Sergeant Roemer McIntyre Jr. was killed when he tried to hunt an enemy sniper. Two days later, a sniper killed Private Harold Johnson of South Milwaukee, Wisconsin, a runner who'd just delivered a message. The number of men wounded had to be considerably greater, a category that



German snipers fought constant delaying actions and laid ambushes right to the end of the war.

British Simultaneous Engagements

As we've already seen, American sharpshooters and snipers were able to hit difficult targets in the Revolutionary War, the Civil War, and World War I by several riflemen firing simultaneously. During World War II, British sniper schools must have taught this simultaneous engagement technique because we find it used over and over against the Germans. Captain C. Shore described one classic application, to boost the odds of hitting a distant target:

"We found an unsuspecting Boche about six hundred yards away from us, and we could not get any closer to him. So we lined up three snipers together and got them to fire simultaneously hoping that one of the bullets would hit. That hope was fulfilled."

Captain Shore also described another classic application, this one in Italy, to eliminate multiple foes with one simultaneous volley:

"[S]ix of the enemy could be seen from the waist upwards. There were four of our snipers on duty and, having their set plan of execution ready, they each selected a Hun and fired. Three of the four Huns fell, and shortly afterwards their bodies were carefully dragged from the top of the bank by their comrades concealed below."

Similarly, a Scottish battalion's snipers employed a simultaneous engagement when there was disagreement about the range to a German observer in a tree. One sniper set his scope for 350 yards, another for 300 yards, and a third for 250 yards. They fired as one and, an account concludes, "the Boche came somersaulting to the ground."

As well, a simultaneous engagement could be the handy solution to hitting a moving target or any other situation where the odds of a one-round hit are boosted by having multiple marksmen fire as one.

included the highest-ranking American to fall to a German sniper's bullet. On 15 April 1945, Major General John B. Wogan, commanding the 13th Armor Division, was struck down by a sniper near Manfort, Germany. General Wogan was hospitalized more than a year, his career over.

Countersniping late in the war reflected a bitter resolve to use any means to neutralize or kill German snipers. When an enemy sniper fired on Private Robert Slaughter's unit, the Americans blasted his tree to bits with an antiaircraft gun. To engage a German sniper firing from a Belgian church steeple, the 289th Infantry Regiment simply called in a tank that blew it apart. Staff Sergeant James G. Sieben of the 104th "Timberwolf" Division earned a Silver Star for climbing atop a tank and directing its main gun against several snipers.

Those final months—and even briefly after the German surrender—the desperate Nazis fielded untrained boys and even young women as snipers. When the 23rd Tank Battalion lost several men to snipers, according to Sergeant Garrett Connors, its tanks knocked down a smokestack containing a



Above: British Sergeant K.H. Roberts of the Hereford Regiment duels with an enemy sniper at Udem, Germany. (National Archives of Canada.)

Right: GIs advance past a comrade's body, killed by a sniper on 19 March 1945 in Worms, Germany.

sniper and “found the body of a teenage girl, 16 or 17 years old, and her rifle with a sniper’s scope.” On the war’s last day, Sergeant Lawrence Swain was killed by a German sniper—who turned out to be a 14-year-old boy.

As ruthless and unrelenting as these sniping actions had become, they barely compare to the scale and ferocity of sniping on the Eastern Front, where snipers tallied their kills in the hundreds, and resolute Nazis and communists fought to the death.



Sniping and the Medal of Honor

As testimony to the dangers in taking on German snipers, many European theater Medal of Honor incidents involved recipients hunting snipers, overcoming snipers, or losing their lives to snipers' bullets.

On 23 May 1944 near Rome, **Private First Class Henry Schauer** demonstrated that the Browning Automatic Rifle was accurate for countering German snipers up to 500 yards away. Along with eliminating several machine gun crews, the Montana native fired "4 bursts from his BAR, each at a different range," to kill four enemy snipers. . . . Catching sight of a fifth sniper waiting for his patrol behind a house chimney," the Medal citation notes, "Pfc. Schauer brought him down with another burst."

Near Salerno, Italy, **Sergeant James M. Logan** of the 36th Infantry Division launched a one-man assault into heavy enemy fire, eliminated several machine guns, and then "went after a sniper hidden in a house about 150 yards" away. Running a gauntlet of fire, the Texan shot the lock off the door, "kicked it in and shot the sniper who had just reached the bottom of the stairs."

Sergeant James P. Connor, 7th Infantry Division, "personally shot and killed two snipers," as well as a number of other Germans, and then was seriously wounded. Inspired by Connor's aggressive action, his platoon continued the attack, capturing 40 enemy troops and seizing their assigned objective.

Technical Sergeant Charles F. Carey Jr., 100th Infantry Division, led several patrols against heavily defended enemy positions, personally killing two snipers and capturing 16 prisoners. Later he destroyed a German tank with a bazooka and rescued several surrounded Americans, and the fight seemed over—then he was struck dead, ironically by a sniper's bullet.

When heavy machine gun fire pinned down the platoon led by **First Lieutenant Raymond O. Beaudoin** near Hamelin, Germany, they soon ran low on ammunition. Three times Lieutenant Beaudoin dispatched runners to get more, and three times enemy snipers shot them dead. Desperate, all alone, the lieutenant crawled forward and then rushed the snipers' nest from 10 yards. "At point-blank range he shot and killed two occupants of the nest; a third, who tried to bayonet him, he overpowered and killed with the butt of his carbine, and the fourth adversary was cut down by the platoon's rifle fire as he attempted to flee." Lieutenant Beaudoin rose to continue the assault but was shot and killed by a machine gun burst.

On Christmas Eve 1944, during the Battle of the Bulge, **Private First Class Melvin E. Biddle** of the 517th Parachute



Private First Class Melvin E. Biddle received the Medal of Honor for outshooting a dozen German snipers and infantrymen to rescue a surrounded U.S. unit. (Courtesy of Congressional Medal of Honor Society.)

Infantry Regiment was his battalion's "lead scout" for the rescue of an American unit surrounded at Hotton, Belgium. Biddle "advanced 400 yards until he came within range of intense enemy rifle fire, and . . . killed 3 snipers with unerring marksmanship." After shooting three more Germans, "he scouted enemy positions alone for several hours and returned with valuable information." Later, when a machine gun pinned down an American force, he slipped forward "and from a distance of 50 yards killed the crew and 2 supporting riflemen."

Lieutenant Colonel Robert G. Cole, a battalion commander in the 101st Airborne Division, earned the Medal of Honor for leading a bayonet charge into heavy enemy fire to seize four critical bridges near Carentan, France. By the time the award was approved four months later, however, he was already dead, killed by a German sniper during Operation Market Garden, the massive September 1944 airdrop into Holland.

Similarly, **Second Lieutenant Harry J. Michael** on 14 March 1945 performed a series of heroic acts for which he would receive the Medal of Honor. Unfortunately, it too became a posthumous award, because the following day, while attempting to hunt a German sniper, his well-concealed quarry shot Lieutenant Michael dead.

Many Distinguished Service Crosses (DSC) also went to soldiers who fought German snipers. For instance, **Lieutenant Emmette F. Gathright** of the 1st Infantry Division received a DSC because he "fearlessly braved intense mortar, rocket and artillery fire, crawled forward and killed four enemy snipers who were impeding the advance of his platoon."



A young British sniper blends into the white countryside during the Battle of the Bulge.



A teenaged German sniper surrenders to U.S. troops in the closing days of the war.

SNIPING ON THE EASTERN FRONT

Exactly one year after the fall of France on 22 June 1941, Hitler turned his armies eastward against his totalitarian nemesis, the Soviet Union. Much as in the west, Germany's eastern offensive began as a mechanized blitzkrieg that smashed or bypassed everything before it. But unlike in the west, sniping played an immediate role that grew exponentially over the next 47 months, with Russia eventually deploying snipers on a scale never before seen.

"Since the first days of the Russian campaign in 1941," observed Colonel Otto Skorzeny, Germany's famed commando leader, "we had seen the Russian snipers at work. They were

dangerous and feared, for their targets were officers and NCOs." That included senior officers. On 29 June 1941, for instance, during his very first operation, the Waffen SS Westland regimental commander, SS *Standartenführer* Hilmar Wackerle, was shot dead by a Russian sniper.

Only two months into the invasion, a German officer's postwar debriefing recalled:

"On 30 August 1941, while combing a wood for [bypassed] enemy forces, a battalion of the German 465th Infantry Regiment was attacked from all sides by Russian tree snipers, and lost 75 dead and 25 missing. In a follow-up thrust, all of the missing men were found shot through the neck."



Despite the hazards of compromise and difficulty escaping, Soviet snipers often fired from trees.



Russian snipers prepare to engage approaching Germans during heavy urban fighting.



A pair of Russian snipers stalks along a river to gain position on attacking Germans.

"Enemy snipers haunted the front line," added Bernard Averbeck, a veteran of the German 95th Division. "They were good with their rifle and we learned from them what we could do and couldn't do. Usually one mistake was all that was allowed; appropriate behavior became second nature."

Great skill also had been displayed earlier in the Far East, when the Soviets and Japanese fought briefly on the Chinese-Manchurian frontier in 1939. How formidable did Russian snipers prove? The captured diary of a Japanese officer, a Lieutenant Kofuendo, contained this evaluation:

"We suffered heavy losses from their accurate fire even when shooting was from a distance of 900 to 1000 meters. The Soviet snipers camouflage themselves well and make skillful use of the terrain. Their soldiers gather in threes and fours and immediately dig in, and fire at our positions with superb marksmanship and inflict heavy losses on us. We had many dead and wounded."

SOVIET SNIPER TRAINING AND ORGANIZATION

Early successes should not have surprised the Germans since sniping enjoyed a high priority in the USSR. According to a recently declassified U.S. report on World War II Soviet intelligence, so important was sniping that along with saboteurs and special operations forces, "training of a number of military specialists, such as sharpshooter units," was directly overseen by the NKVD (precursor to the KGB) and its powerful boss, Felix Dzerzhinsky. Just after the German invasion, Premier Josef Stalin himself had declared, "In territories occupied by the enemy we must organize units of sharpshooters on horseback and afoot, as well as groups of partisans. . . ." They would inflict as many casualties as possible without regard to friendly losses.

Unlike the U.S. and European powers, well before World War II the Red Army had appreciated the possibilities of long-range sniping. In 1933, at a time when virtually no Western country was training snipers, the U.S. military attaché at the American Consulate in Riga, Latvia, Major W.E. Shipp, forwarded excerpts from a new Soviet sniper training manual to Washington. Russian soldiers, the manual noted, were taught to engage targets to 800 meters with a rifle scope and half that distance with open sights. At long range they were expected to score at least two hits per five shots fired, while at medium range—400 meters—a firing exercise specified that all their shots should hit half-size silhouette targets.

As in Nazi Germany, marksmanship training of prospective Soviet snipers began while they were yet teenagers and belonging to an organization akin to the Hitler Youth. In Russia this was OSOAVIAHIM,

Russian Sniper Offensive Tactics

Russia's propaganda-laced 1942 sniper manual was strong on inspirational anecdotes but unfortunately light on tactical advice. A year later, Red Army Major P. Pavlov authored a lengthy article, "Snipers in Offensive Combat," which offered realistic tactics for snipers. In the defense, he observed, snipers benefited from familiarity with the terrain and fighting from prepared positions. Here are some of his insights and tips for the more difficult sniping during offensive actions.

- "Each shot by a sniper taking part in offensive combat must help the advance of the infantryman."
- When faced with multiple targets, "the sharpshooter chooses that which at any given moment hinders the attackers the most."
- "Destroying crews of hostile machine guns and artillery, snipers, observers and officers, he helps the unit move forward."
- The sniper advances "a few hours before the attack" and conceals himself to await the attack.



As the war progressed, snipers contributed significantly to Soviet offensive operations.

- During the attack “the sniper takes advantage of the fact that the attention of the enemy is concentrated on the attackers,” which he exploits to fire into the enemy.
- “In the noise of ceaseless bombardment, the single report of the sharpshooter is lost . . . it is hard for the enemy to discover him.”
- “The sniper must by observation determine promptly the [location] of enemy machine guns . . . to kill the crews during the attack.”
- Against a well-dug-in force, “accurate fire on periscopes, rangefinders and stereoscopes deprives the enemy of the opportunity to observe and hence conduct aimed fire.”
- “[S]nipers have the task of blinding [enemy bunkers] by firing on the embrasures and observation equipment . . . and destroying personnel retreating from the hostile fortified firing point.”
- During a breakthrough, “snipers pick out and destroy important targets, or indicate with tracer bullets targets for tanks and artillery.”
- “When the target is out of the sniper’s reach, he indicates it to the artillery with tracer bullets, and quickly changes position after firing the tracer bullets so as not to be discovered.”
- “When the enemy begins to retire, the sniper moves forward and together with groups of tommy gunners infiltrates farther to the route of probable retreat of the enemy. Here from ambush the sharpshooter kills officers, crews of fire elements covering the retreat, drivers of [vehicles] . . . and also horses.”

the Union of Societies of Assistance to Defense and Aviation-Chemical Construction of the USSR, created in 1927 to train and groom teens as young as 14 for military service. Nationwide, it had more than 12 million members. Particularly coveted by these young men and women was the Voroshilov Sharpshooter Badge, earned by passing a difficult shooting exercise. In 1941, more than 60 percent of OSOAVIAHIM’s teenage boys in Leningrad wore that Voroshilov Badge, which contributed mightily to some “600 snipers . . . and 1000 sharpshooters” being recruited and trained inside that besieged city.

The Red Army began the war with sniper schools operated by several higher commands, such as fronts, corps, and divisions. Once hostilities erupted and the need for snipers exploded, many makeshift courses—some running not even a full day—sprouted up everywhere. During the Siege of Stalingrad, some newly arriving soldiers were rushed through hasty sniper training in bombed-out buildings and then sent on their way, having barely time to properly zero their rifles. As quickly as particular snipers demonstrated proficiency, they were saddled with the additional duty of training more snipers, right there at the front. Thus, the USSR’s most accomplished World War II sniper,

The Sniper Movement

Amid a sea of despairing Soviet losses—which initially were huge, with 3.8 million casualties in the war's first 10 months—sniping successes offered a glimmer of hope. When Russian snipers began inflicting significant casualties, Soviet propagandists leaped on the good news, but, in the worst tradition of Madison Avenue copywriters, the truth wasn't quite good enough. A Red Army sniper couldn't simply be a courageous marksman placing well-aimed shots, but rather "a resolute and ruthless avenger destroying Hitler's tyrants for their dark crimes." And German snipers were not mere snipers but



This Russian wartime stamp honored Red Army snipers.

"brutal members of the Nazi party—current and former criminals. They train killers and robbers who have lost human feelings. Fascist snipers kill women and children just for entertainment, by using them as targets."

There was little reporting about losses of Red Army tank brigades or the surrender of major towns, but Soviet media made heroes of individual snipers who employed shooting skill and Slavic fortitude to destroy foreign invaders. A sniper identified only as "Zikan" was alleged to have killed 224 Germans at Stalingrad. A sniper with the Red Army's Southwest and Don Front, a "Sergeant Passar," killed 103

detested Fascists. Another Red Army soldier, "Sniper Smolijachkov," trained 10 snipers, and they in turn trained 30 snipers apiece, so that a total of 300 "crack shots" killed 2,000 Germans within three months.



According to Soviet propagandists, the Red Army sniper was a "resolute and ruthless avenger."

Snipers were celebrated in posters, in songs, even on their own postage stamp.

Just like the Stakhanovite movement in factories, whereby the Communist Party urged workers to ever exceed party-dictated quotas, so did sniping



This man is your FRIEND

Russian

He fights for FREEDOM



The U.S. Department of War information published this propaganda poster.



This poster declares, "A sniper's long-range shots are fired with certainty!"

become a *movement* in the Communist mass-action sense. Body counts grew and grew. At Leningrad in just 21 days in February 1942, Soviet propagandists claimed that snipers had killed "10,784 German soldiers, i.e., the strength of an entire division." Though it sounds ridiculous, Russian sniper V. Galichenko enthusiastically proclaimed in a magazine article, "I consider that every Red Army man can, and should, become a sniper."

As the campaign built momentum Soviet media began promoting "sniperism" as shorthand for individually contributing to the war effort and taking initiatives that never before would have been tolerated under communist conformity. Not only was every good Soviet citizen to honor and respect their comrade snipers, but they were to emulate snipers by increasing production, finding shrewd ways to boost efficiency, and so on.

Though there were many gallant and entirely real Red Army snipers, more than a few of those credited with battlefield achievements were exaggerations or complete propaganda puffery, justified by the need to raise morale.

Evidence of this clearly exists. According to British Captain C. Shore, "a decorated Russian sniper,"



Clearly staged, this Russian propaganda footage allegedly captures a German as he's shot by a sniper.

while visiting Britain, was invited to a range to try out a British sniper rifle. "Upon doing so," Shore reports, the Russian displayed "ignorance of the most basic fundamentals of accurate rifle practice." His British escorts concluded, "It would have been impossible for him to have been a sniper, in any accepted sense."

Evidence also is found in Russian wartime propaganda films. A *History Channel* documentary about sniping, in which I played a role, included two insightful scenes, from both of which I have outtake still photographs. In the first picture, purportedly showing a Russian sniper shoot a German, the rifle's muzzle is embarrassingly too far right to possi-

bly have hit his "victim." In the other case we see a woman firing a scoped Mosin-Nagant. Her PE scope has 3 1/4-inch eye relief, but her eye is about 6 1/2 inches away—*she couldn't see a thing!* Further, in the film version she shut her eyes and jerked the trigger. Yet, propagandists claimed, this woman sniper had killed 34 Germans.

All these years later, it's almost impossible to separate propaganda from fact, except for one undeniable truth: many thousands of Germans went to their graves via well-placed shots on the Russian front, and those precisely placed projectiles were fired by real Russian snipers, who fought with genuine devotion, courage, and skill.



Soviet propagandists claim that this woman shot 34 Germans—but she jerks the trigger, shuts her eyes, and holds her eye too far away to see through the scope.

German Generals as Sniper Targets

According to a study of German general officer casualties published by the U.S. Army Command and General Staff College, not a single German general was lost to a sniper in the West during World War II, but three generals were killed on the Eastern Front by Russian snipers. "One factor assisting the Soviets in this effort," the study noted, was the German generals' distinctive uniform, with a wide red stripe on their pants legs.

First to fall was the commander of the 61st Infantry Division, Major General Franz Scheidies, shot dead by a sniper with a head shot. He was killed on 7 April 1942 during fighting near Gluschtza, USSR.

Next to die was another division commander, Major General Walther von Hunersdorff, also killed by a head shot. As commander of the 6th Panzer Division, on 14 July 1943, during the critical Battle of Kursk, von Hunersdorff was traveling to his forward command post, apparently in an open car, when one well-placed shot mortally wounded him. He died three days later in a Kharkov hospital.

The highest-ranking German casualty was the commander of the 4th Mountain Division, Lieutenant General Kress, who led a corps-level *Gruppe* bearing his name. He was killed by a Red Army sniper near Novorossiysk in the summer of 1944.

In addition to these, another division commander, leading a Waffen SS unit composed mostly of pro-Nazi Muslims, also was killed by a Russian sniper. SS *Obersturmbannführer* Andreas Meyer-Mader, commanding the *Ostturkischen-Waffen-Verbände der SS*, was fighting enemy partisans near Minsk on 28 March 1944 when a sniper drew a bead on him, killing the Nazi officer. After their popular leader's death, unit morale plummeted, many soldiers deserted, and the division never fully recovered.



Major General Walther von Hunersdorff, commander of the 6th Panzer Division, was killed by a Russian sniper during the Battle of Kursk.

Captain Ivan M. Sidorenko, not only killed 500 Germans but also trained some 250 Russian snipers who killed still more enemy. Staff Sergeant N.F. Semyonov was credited with killing 218 Germans, but he also trained 94 snipers who killed a further 580 enemy. Even the famed Vasili Zaitsev had to split his time at Stalingrad between hunting the enemy and training snipers.

The building block of Soviet sniping was the two-man team, with one man observing while his partner fired. As a rough rule of thumb, each Red Army platoon included such a two-man team, while each battalion had its own platoon of sniper-scouts. Other organizations also had snipers, tailored to fit the



The prewar Red Army Excellent Marksman's Badge.



A prewar Soviet Army Sniper's Badge.



Above: A wartime Russian Sniper's Badge.



Right: A later wartime Red Army Sniper's Badge.



Coached by a Red Army officer, a Russian teenager hopes to earn a Voroshilov Sharpshooter Badge, circa 1937.



A Russian sniper school student kisses his rifle at graduation.

larger unit's mission. For instance, each Russian naval infantry battalion included a Scout Platoon but began the war armed with submachine guns. In April 1942, however, Senior Naval Lieutenant Viktor Kalganov reasoned, "We see the Germans every day but do not shoot them. This isn't right. We must combine our observation with sniping." After Lieutenant Kalganov demonstrated the superiority of scout-snipers, other naval infantry battalions likewise armed their scouts as snipers. In Russian special operations, each 133-man "Sabotage Force" battalion of the OGBM (*Otdelnyi Gardeiskii Batalon Minerou*) contained three snipers with a basic load of 600 rounds. By late 1941 and the Battle for Moscow, Siberian rifle regiments included 15 snipers with scoped rifles in each 117-man Red Army ski company—probably the highest percentage of snipers for any Allied unit, except for times when the Red Army concentrated whole companies of snipers for particular operations.

Although Soviet propagandists would glorify the sniper's independent role, in most situations the Red Army sniper was an integrated, supporting arm for his fellow infantrymen, much like a light machine gun crew. This became especially important after 1943, when a great many Russian



Naval Infantry sniper Ivan Antonov had 302 kills.

infantrymen carried short-range, fully automatic “burp guns”—PPSh-41 or PPS-43 submachine guns—and the rifle-armed sniper (and machine gunners) had the only weapons effective beyond 200 meters.

THE MOSIN-NAGANT SNIPER RIFLE

The primary Russian sniper weapon was the Mosin-Nagant Model 1891/30, a simple bolt-action rifle with a distinguished lineage: it had evolved from the Russian Model 1870 single-shot, bolt-action, developed by the celebrated U.S. Civil War sharpshooter commander, Colonel Hiram Berdan. In 1891, Russian Colonel Sergei Mosin worked with Belgian Emile Nagant to create a five-shot, fixed-magazine rifle that fired a new round, the rimmed

7.62 x 54mm, which was ballistically similar to the American Springfield .30-06 cartridge. The Mosin-Nagant action may have lacked a Mauser’s sophistication, but it functioned reliably and offered reasonable accuracy. Like its foreign counterparts, the M91/30 was reloaded from the top using five-round stripper clips.

In 1930 the Soviets modified the original ‘91 design, rounding off its flat-sided receiver to allow simpler machining, along with making minor changes in its sights and barrel bands. The M 91/30 also reduced barrel length to 28 3/4 inches.

Sniper versions of the Mosin-Nagant began as ordinary rifles, which were test-fired at 100 meters for accuracy. According to a 1942 Soviet manual, those that grouped no larger than 6 centimeters (2.3 inches), or approximately 2 minutes of angle, became sniper rifles. (By contrast, an acceptable Soviet infantryman’s rifle was allowed a maximum group three times that size.)

Once it was selected, the rifle’s most conspicuous modification was its turned-down bolt, a necessity for operating it once a scope was mounted. Internally, operating surfaces were polished to smooth the action and reduce trigger pull to a minimum of 4.4 pounds and a maximum of 7 pounds.

Russian and German Cartridge Ballistics

No matter an Eastern Front sniper's shooting skills, his cartridge's exterior ballistics could significantly contribute to his accuracy, lethality, and maximum range.

To better consider these factors, I employed Sierra's state-of-the-art software to compare the Eastern Front's primary rifle cartridges, when loaded to their respective military standards. These were the German 7.92 x 57mm (.323 caliber) with a 154-grain spitzer bullet, at a muzzle velocity of 2,880 feet per second and a ballistic coefficient of 0.290; and the Russian 7.62 x 54mm Rimmed cartridge (actual .311 caliber) with a 148-grain spitzer bullet at a muzzle velocity of 2,738 feet per second and a 0.360 ballistic coefficient.

Here are the calculations for engaging targets at 300 and 500 yards, assuming a 100-yard zero, with the German scope set 1 1/4 inches above the Mauser's bore and a Russian PU scope mounted 2 inches above the Mosin-Nagant's bore:

	300 YARDS			500 YARDS		
	Velocity (in fps)	Energy (in ft.-lbs.)	Bullet Path (in inches)	Velocity (in fps)	Energy (in ft.-lbs.)	Bullet Path (in inches)
Russian 7.62	1,948	1,247	-14.8	1,513	752	-67.0
German 7.92	2,065	1,458	-13.9	1,610	886	-61.1

The Soviet army's 7.62mm bullet, weighing just 6 grains less than the German round, left the muzzle 117 feet per second slower and never really caught up. Despite that, the Russian bullet's resulting energy and bullet drop were not dramatically inferior to the German 7.92mm.

By 500 yards, the Russian bullet had dropped 6 inches more than the German projectile, which means that a Red Army sniper had to be a bit more exacting in his range estimate or he more likely would miss his target, compared with his German counterpart. Thus, although the German sniper had a slight edge, it was not enough to be called a real advantage.



The Russian 7.62 x 54mm Rimmed cartridge was ballistically similar to the U.S. .30-06 Springfield.



The backbone of World War II's Russian sniper effort, the Mosin-Nagant Model 1891/30 with PU scope.

Technicians then lapped the bore with a fine abrasive to eliminate tiny burrs left behind when the rifling was cut. And, finally, the receiver was modified to accommodate a scope mount. Like other top-loaded bolt actions, the scope atop the Mosin-Nagant precluded reloading with a stripper clip, requiring the sniper to manually load individual cartridges.

Prior to the German invasion, more than 54,000 M91/30 sniper rifles with the PE or PEM scope had been made. In 1941, however, manufacturing was suspended in hopes that a sniper version of the new semiautomatic SVT-40 Tokarev rifle would replace the M 91/30 (see below). A year later, the Mosin-Nagant sniper rifle went back into production, except—reflecting wartime necessity—the stocks were cut from inexpensive birch and the costly PE/PEM scope was replaced with the simpler PU scope. Production rates mushroomed, with more than 300,000 scoped M 91/30 sniper rifles being sent to the front by 1943.

RUSSIAN RIFLE SCOPES

The Model 1891/30's original scope was the 4x PE, which has a curious history. In the 1920s, Germany and Stalinist Russia secretly agreed to let German officers and soldiers train on Russian soil—violating the Treaty of Versailles, which had ended World War I—in exchange for military technology flowing to Russia. As part of this clandestine agreement, the USSR received a Zeiss optics plant with all its machinery and the design for what eventually became the Soviet PE scope.

Firing the Model 1891/30 Sniper Rifle

A few years ago I acquired a Mosin-Nagant sniper rifle. Built in 1943, its materials, fit, and finish reflect wartime mass manufacturing, with my rifle not so fine an instrument as a postwar Mosin-Nagant I examined that was captured in Vietnam.

Despite 48 inches of overall length, it's not heavy or unwieldy, weighing almost the same as an American M1 Garand, at 9.7 pounds. Typical of any top-loaded bolt-action sniper rifle, it cannot accommodate stripper clips for fast reloads, but in a dire situation it's easy to drop a round into the receiver and slam the bolt forward. My electronic trigger pull gauge had the trigger break at just over 5 pounds, which is pretty stiff for a shooter accustomed to modern sniper rifles, yet that's well within the 1942 Soviet standard of 4.4 to 7 pounds. I experienced no trigger creep, but the pull was not very smooth.

The rifle's PU scope is rugged and reliable, and despite uncoated lenses it provides a reasonably clear image. Typical of most World War II scopes, it's just 3.5x, which limits how well and how far a sniper can see his targets.

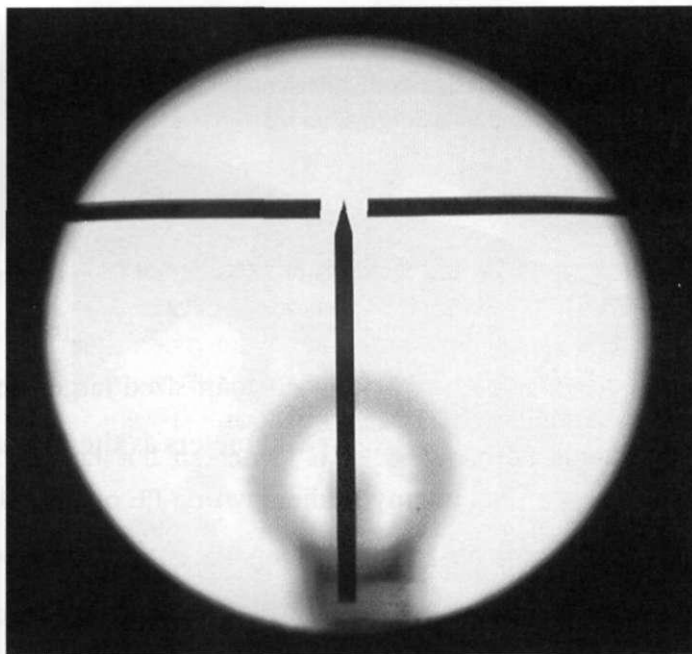
When my rifle arrived, I disassembled and cleaned it, including corking the muzzle to allow solvent to work the bore for a full 72 hours. My PU scope required several thin metal shims under the mount to align it to the bore; then it was off to the range.



Fired here by an Asiatic Russian, the Mosin-Nagant rifle (shown with a PEM scope) proved reliable and acceptably accurate.

For accuracy testing, I fired five varieties of sniper or match-grade ammunition, using a mechanical firing rest. These loads included Russian "competition" (match) cartridges in 200 grain; Sellier & Bellot 174-grain match; Czech and Russian military silver-tipped, 147-grain sniper ammo; and Russian-made Wolf 200-grain match.

Shooting this Mosin-Nagant really well, I found, could be quite a challenge, mostly due to its PU scope. First, unlike Western rifle scopes, while zeroing the PU the crosshairs actually move right/left and up/down, which can yield a disorienting, oddball sight picture. Though this strange off-center view can be mentally overcome with practice, if zeroing moves the reticle far right or left, it reduces the maximum elevation and, equally, makes it difficult to hold off for moving target leads. Further, the PU scope mount lifts the scope quite high—2 1/4 inches above the bore—which all but eliminates a solid cheek weld and accentuates unsteadiness. To minimize this mushy cheekweld, the best remedy is to improve stability by firing the rifle on support.



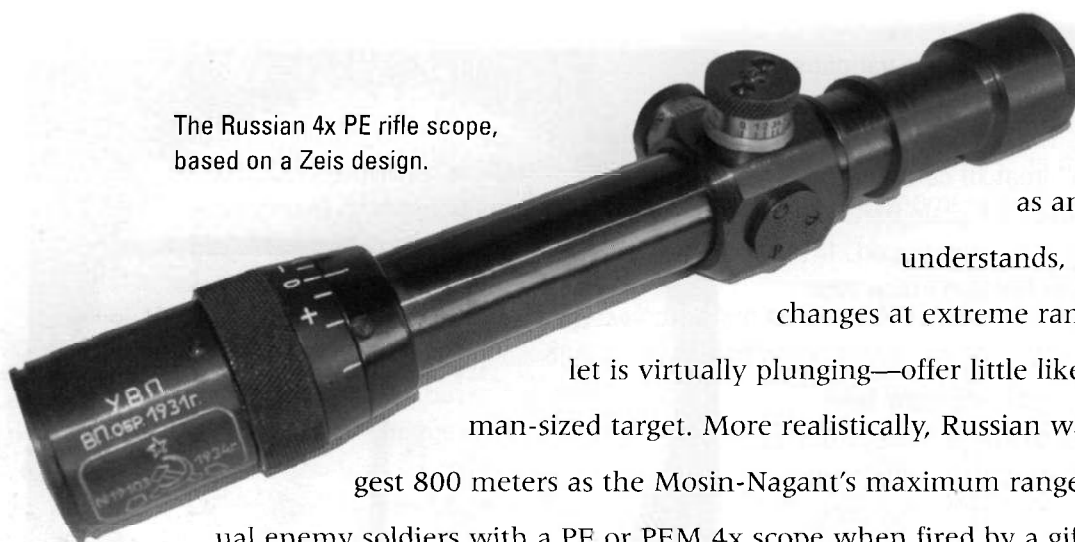
Because the PU scope's reticle actually moves, this can be the sight picture for a 100-yard zero.

As for the firing test, the results were not spectacular. The tightest five-round, 100-yard group—fired with 147-grain military sniper ammo—was just under 3 inches, about a half inch wider than the Red Army's 1942 standard.

At 800 yards, this equates to a 24-inch group, hardly the stuff of first-round hits at long range. But keep in mind that the great majority of Russian sniper engagements were at 250 meters or less, and in the USSR's great city sieges, Stalingrad and Leningrad, fire often was exchanged across a city street, not even 100 meters. At those realistic distances, I have no doubt that many a German went to the Promised Land via a well-concealed, tactically adroit Russian sniper who had mastered this simple but dependable weapon.

The USSR's first version, called the D-III, was doomed by poor seals that fogged the lenses. Once fixed, this became the PE scope, a solidly made device with a 26.5mm steel tube and 24mm objective lens. Distinct from German Zeiss lenses, the Russian ones were uncoated, yet they were of fairly high quality. In 1936, the PE was slightly modified to simplify its manufacturing, with the new model designated the PEM. The most visible difference was the absence of the knurled reticle focus ring on the PEM's rear (ocular) bell.

Both the PE and PEM had an elevation drum synchronized to the 7.62 x 54mm bullet's trajectory,



The Russian 4x PE rifle scope, based on a Zeiss design.

with settings for shooting up to 1,400 meters. But

as any long-range shooter

understands, such preset elevation

changes at extreme ranges—where the bul-

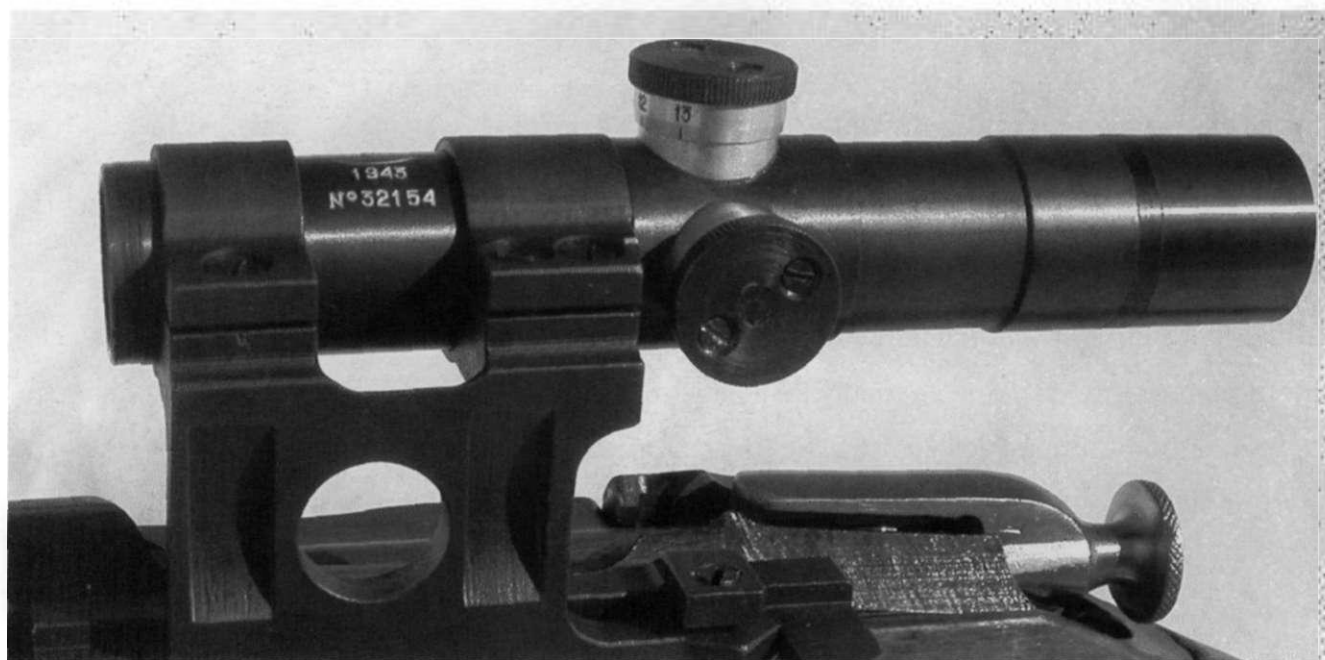
let is virtually plunging—offer little likelihood of hitting a

man-sized target. More realistically, Russian wartime accounts sug-

gest 800 meters as the Mosin-Nagant's maximum range for hitting individ-

ual enemy soldiers with a PE or PEM 4x scope when fired by a gifted marksman.

When the Mosin-Nagant sniper rifle's production was suspended in 1941 in favor of the Tokarev semiauto, PEM scope manufacturing ended, too. Then, in late 1942, Red Army officials realized that the Tokarev had to be dropped and the M 91/30 reintroduced. At that critical moment—with Leningrad besieged, Moscow threatened, and the outcome not yet clear at Stalingrad—these officials decided to standardize with the PU scope, a new, simpler optic that had been developed for the SVT-40. Though less sophisticated and offering less magnification (3.5x) than the PE/PEM, the PU scope required simpler lenses and a heavy steel tube having a single 26.5mm diameter, making it faster, easier, and cheaper to manufacture in a variety of optics plants.



A simple, rugged design, the 3.5x PU scope.

Unlike PE/PEM scopes, which were mounted close to the receiver, the PU mount lifted the scope much higher—about 2 1/4 inches above the bore—so a sniper could still use his iron sights for fast, close-range shots. The trade-off was that the sniper had to raise his head unnaturally above the stock to align his eye with the scope, making it difficult to develop a proper cheekweld.

Like the PE/PEM scope, the PU had an elevation drum synchronized with the 7.62 x 54mm bullet's trajectory, with settings all the way to 1,300 meters. As well, like the PE/PEM, I doubt that those incremental adjustments were precise enough to consistently make shots beyond about 700 meters against man-sized targets.

Perhaps the PU scope's greatest fault is that—unlike Western rifle scopes—its windage and elevation adjustments visibly shifted the reticle. A Russian sniper might easily find that to achieve his

100-meter zero, his reticle had to be cranked way off center and low or high. Not only would this make it difficult to get off fast shots accurately, but potentially it reduced his maximum elevation. The insertion of thin metal shims between the mount and receiver could remedy this somewhat by “truing” (i.e., boresighting) the scope before zeroing it—a depot-level task that should have been accomplished when the scope was first mounted. But in the wartime rush to get rifles fielded, in more than a few cases I suspect that a frontline sniper had to make do with a less than perfectly aligned scope and simply learn to overcome his lopsided sight picture.



An exhausted German sharpshooter sleeps on the Russian snow. Note the ZF 41 scope on his rifle.

RUSSIA'S SEMIAUTO SNIPER RIFLE

The Eastern Front saw both sides field sniper versions of semiautomatic rifles, with the USSR leading the world by introducing the first such weapon, an optically equipped SVT-40 Tokarev. For a

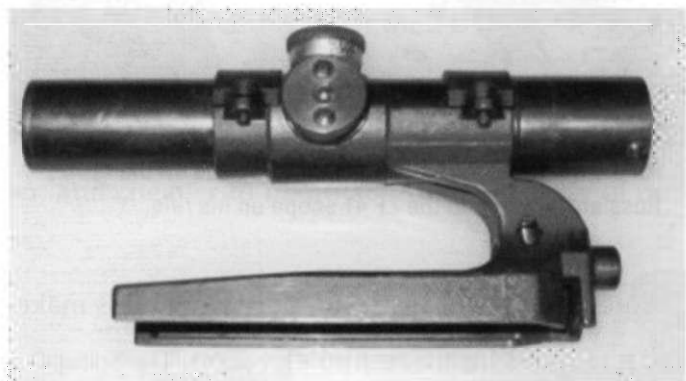


Above: The SVT-40 rifle proved unreliable and inaccurate, but some snipers still favored it.

Right: A German soldier fires a captured SVT-40 sniper rifle.



Below: The Russian PU scope with mount for the SVT-40 Tokarev rifle.



sniper, a semiauto meant faster follow-on aimed shots because he didn't have to break his grip to manipulate a bolt. Further, in a close-range encounter, being able to get off 10 rounds as quickly as he pulled the trigger—instead of five rounds at the rate he could bolt his Mosin-Nagant and then pull the trigger—could mean

life or death. For that reason, many Russian (and German) snipers already carried secondary weapons, such as the Soviet PPSH-41 submachine gun or its German counterpart, the MP40.

The promise of the Tokarev SVT-40 was great, with its 10-round detachable magazines offering 30 or more aimed shots per minute—so great that Soviet officials put it into production despite serious shortcomings. A major problem was its scope mount, which attached to the relatively flexible, stamped-steel upper receiver. The SVT-40 must have been abysmally inaccurate because Russian wartime accounts don't even cite group sizes. Reliability, too, suffered because some stamped parts broke, and the rifle generally could not stand up to heavy use and high rates of fire. Although its muzzle brake and gas system reduced felt recoil, the long stroking action

Finnish Snipers in the Winter War

During the winter of 1939–40, for some 100 days, all alone, tiny Finland fought an immense Soviet invasion force. Outnumbered 4 to 1, the 130,000-man Finnish army and Civil Guard took on 26 Russian divisions, tapping into their superior shooting and winter warfare skills to fight the Red Army to a standstill. Answering the challenge, "*laaki ja vainaa*" (one shot—one kill), Finnish snipers assisted this David-vs.-Goliath fight, and, in fact, one Finn scored what's regarded as the greatest number of sniper kills ever recorded.

Corporal Simo Hayha, a 35-year-old Civil Guardsman from the heavily forested lake country northeast of Helsinki, shot 542 Russian soldiers, according to several sources. A prewar competitive shooter and moose hunter who'd roamed Finland's woods and swamps, Hayha stood only 5 foot, 3 inches, but his fieldcraft, marksmanship, and courage more than compensated for his size.

Hayha and his comrades of the 34th Infantry Regiment performed miracles on the Kollaa Front, where Russian soldiers trudging the deep snow often found themselves shot by "cuckoos"—snipers in trees—who deployed in fours for deadly intersecting fire and then skied away. Often operating alone, Hayha drifted like the wind, a ghost that might appear anywhere, his shapeless shadow shooting first from one flank, then skiing to fire from another direction, and then lying low to ambush the Russians after they'd passed his hiding place. Since he was famed for his white smock sewn from bedsheets, the Russians nicknamed him *Belaya Smert* (the "White Death"). Hayha averaged an astonishing five kills per day for the entire three-month war, with his highest daily score reaching 25. He found no shortage of targets, especially during the Battle of Killer Hill, where 32 Finn ski soldiers fought off 4,000 Russian soldiers trying to assault them in deep snow.



A Finn Civil Guard sniper during the Winter War, with a captured Russian PEM scope atop his M 28-30 rifle.

Hayha preferred the M 28-30 bolt-action rifle, a Finnish-made, higher-quality version of the Russian 91/30, 7.62 x 54mm Mosin-Nagant. Unlike many snipers, Hayha used iron sights, both because that was how he was accustomed to shooting and because his engagement distances seldom exceeded 200 meters. Further, he believed that a scope would have raised his profile, making him more susceptible to being detected. By contrast, many Finnish snipers had Russian-made PE or PEM 4x rifle scopes, either purchased prewar or taken off captured Russian weapons. Unlike the British, U.S., German, and Russian armies, the Finns developed a special curved stripper clip that allowed these rifles to be quickly reloaded despite the scope.

Some purists have questioned Hayha's score due to his choice of weapons. About half his kills were at relatively close distances, less than 100 meters, which dictated using his 9mm Finnish Soumi sub-machine gun rather than a bolt-action rifle. Hayha saw no such distinction, considering an invading Russian just as dead whether he shot him from ambush at 50 meters or 500 meters.

Badly wounded by a Russian sniper on 6 March 1940, Hayha regained consciousness a week later to find a ceasefire—Stalin's bloody gambit to seize Finland had been deflected, the cost simply too great for the Red Army. In 100 days of fighting, the Finns had lost 25,000 men, but more than eight times their number—in excess of 200,000 Russians—had paid with their lives for underestimating that tiny Scandinavian land.



Finland's—and probably the world's—greatest sniper of all time, Simo Hayha.

shifted the center of balance while firing, somewhat like the SVD Dragonov rifle would do 30 years later, complicating follow-on shots. And, critics pointed out, its considerable muzzle flash could compromise a sniper's location.

Had it not been wartime, these problems probably could have been corrected. During the 100-day Winter War, the Finnish army had captured a number of Tokarev SVT-38 rifles, an earlier version of the SVT-40, and studied them. Finnish small arms experts found that these rifles suffered from a poor alignment of the bolt face to the chamber and that mating machined surfaces were too loose to achieve accurate shooting. As well, the barrel was too thin and easily overheated, warping during rapid fire. When the Finnish arms maker Sako installed heavier barrels and better, one-piece stocks, it cut the SVT-38 groups by 65 percent. But, the Finns decided, it was too costly and time-consuming to be worth modifying such poorly made rifles.

The USSR, too, reached a similar conclusion. In November 1942, after having fielded some 58,000

Tokarev sniper rifles, the semiauto's shortcomings at last had become so undeniable that Russia's arms factories switched back to producing the bolt-action Mosin-Nagant. However, the scope developed for the SVT-40, the 3.5x PU, would go on as the Soviet Union's sniperscope well into the 1960s.

In spite of its poor reputation, some Russian snipers preferred the SVT-40 for its high rate of fire and detachable 10-round magazine. Just like the World War I Canadian snipers who used the Ross sniper rifle despite reliability problems, some Russian snipers accepted the Tokarev's shortcomings—most notably Ludmilla Pavlichenko, the USSR's greatest woman sniper (see "Russia's Greatest Female Sniper," page 452)—and simply adjusted how they used it to avoid such problems.

GERMANY'S SEMIAUTO SNIPER RIFLE

The German army, too, wanted a semiauto sniper rifle and had been fascinated by the Tokarev rifles captured in Russia. When the German G-41 semiautomatic rifle failed to live up to expectations, several Tokarev features were incorporated into a more refined weapon that emerged two years later. This was the Gewehr-43 or G-43 rifle, which fired the same 7.92mm cartridge as the K-98 bolt-action, but held twice the ammunition—10 rounds—in a detachable magazine.

For sniper use, the German army required that the G-43 meet the same accuracy standards as the bolt-action K-98 sniper rifle. At 100 meters this meant shooting a three-round group no larger than 70mm (2 3/4 inches) when a scope was used. Although few G-43s could meet that standard and the rifle underwent considerable "teething" problems, the demand for a semiauto was simply so great—and the Führer's emphasis so uncompromising—that it went into production. Reflecting the wartime material shortage and the Allies' unrelenting bombing campaign, the G-43 used stamped parts to reduce machining requirements and a laminated stock to allow the use of substandard wood.

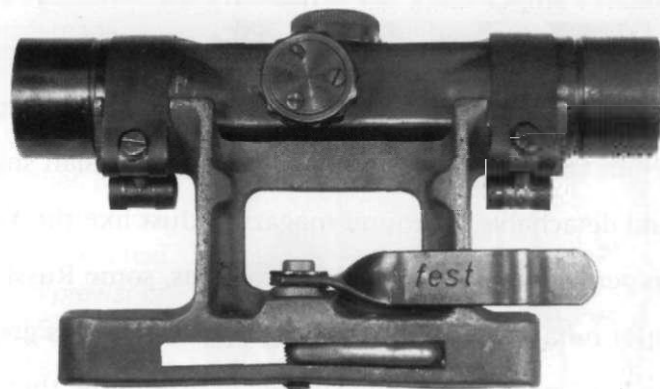
Each G-43 came off the production line with an integral scope rail to accommodate a parallel development, the 4x ZF 4 rifle scope. Influenced by the Soviet PU scope, the compact ZF 4 (only 6 inches



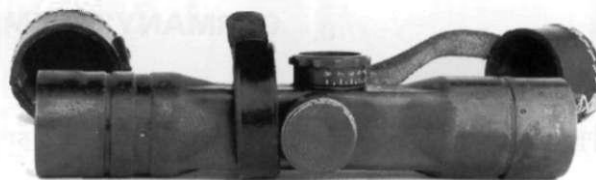
German G-43 semiautomatic sniper rifle with its 4x ZF 4 scope.

long) was a simplified design intended for mass production, with a sheet metal tube and inexpensive lenses. (Actually, the ZF 4 was intended as a universal optic for an entire family of advanced German weapons, from the G-43 to the FG 42 paratrooper's rifle and the MP44 assault rifle.)

The scope's elevation knob had preset 50-meter increments for engaging targets from 100 to 800 meters. As envisioned, for close-in gun-fights a German soldier would use his G-43's open sights, and when engaging enemies at medium ranges—beyond 300 meters—the soldier simply attached the ZF 4 scope to optically engage his foes. Unfortunately the ZF 4's mount,



ZF 4 scope with quick rail mount for the G-43 rifle.



Using a sheet steel tube and cheap lenses, the ZF 4 scope offered mediocre performance.



The ZF 4 scope fit a family of advanced weapons, including this MP44 assault rifle.

which clamped shut via a lever, did not precisely return the scope to its original position, causing a slight shift in zero each time it was removed. This, plus its low-quality lenses and the G-43 rifle's marginal accuracy, significantly limited this combination of rifle and scope for sniping use.

Still, that semiauto feature and 10-round detachable magazine found considerable favor among Germany's Eastern Front snipers, with more than a few carrying both a G-43 rifle for close-range, high-volume shooting, and the scoped K-98 bolt-action for long-range, deliberate engagements. Once his ZF 4 scope was zeroed, of course, a German sniper would never remove it. In his greatest engagement, for which he was awarded the Knight's Cross of the Iron Cross, Josef "Sepp" Allerberger fired three 10-round magazines from a scoped G-43 to repel a Russian mass infantry attack. From those 30 rounds—fired at 50 to 100 meters—it was later determined that Allerberger had killed 21 enemy soldiers, bringing his total tally since the previous September to 100 enemy KIA. Allerberger attributed much of his success on this 2 April 1945 engagement to his ammunition—which was explosive and considerably more lethal than standard projectiles.

EXPLODING BULLETS

Both the Soviet and German armies had explosive rifle projectiles, ostensibly for adjusting range by observing the bullet's impact, but also used by snipers to inflict particularly horrific wounds. According to German snipers, it was the Russians who first employed such exploding projectiles, which, Allerberger said, was often the Russian sniper's round of choice.

The Russian round was the 7.62 x 54mm "ranging adjustment" PZ cartridge, which could not have contained much explosive—but *any* explosive would dramatically boost a bullet's terminal effect. Unlike a normal hardball military projectile, which often passes through a man without transmitting much energy, an explosive round shatters into fragments and dumps 100 percent of its energy. Instead of having a flesh wound in the shoulder, a man hit by a PZ projectile likely lost his whole shoulder. This clearly violated the Hague Convention of 1907—which outlaws "projectiles or material calculated to cause unnecessary suffering"—but the Eastern Front's fight-to-the-death attitudes muted such concerns. Some German snipers, such as Allerberger, armed themselves with captured Russian sniper rifles and fired PZ ammo themselves.

The German army, too, had an explosive rifle projectile, the B-cartridge, or *Beobachtungspatrone*, which literally meant "self-observed cartridge," developed to allow fighter pilots to see their hits on

enemy aircraft. On 25 February 1945, the German High Command authorized what already had become a practice on the Eastern Front:

"On the strength of increasing employment of explosive projectiles by the Russian infantry, the Führer has released the use of B-cartridges by snipers for the region of the Eastern Front. . . . The taking of B-cartridges to other fronts is forbidden. Snipers are to be instructed that they have to give up B-cartridges upon employment to other fronts."

German sniper Allerberger tested this round and found that it "cut down effortlessly" saplings measuring 2 inches in diameter. Despite such impressive terminal effects, however, these Russian and German rounds were not exceptionally accurate and were incapable of penetrating barriers, such as doors or trees, thus limiting their usefulness.

MASTERS OF CAMOUFLAGE

Snipers on both sides of the Eastern Front became masters of camouflage. In a postwar debrief, a German officer complimented the Red Army soldier's camouflage skills:

"[The Russians] understood perfectly how to blend into their surroundings and were trained to vanish into the ground upon the slightest provocation . . . they skillfully used darkness, vegetation, and poor weather conditions. Their movements at night and their advances through wooded terrain were carried out with exemplary quietness."

To enhance concealment, Russian snipers—along with recon troops and engineers—were issued special camouflage clothing with a mottled coloration somewhat like the British DPM 1995 pattern. Issued as a hooded jacket or smock, snipers improved its effectiveness by pinning leaves and small branches around the shoulders and hood. They also had a two-piece sniper's camouflage suit, which had bits of cloth and artificial foliage for a three-dimensional effect and tie-downs for adding natural foliage.

In 1942 the Red Army also fielded a one-piece sniper's coverall, which contained large brown splotches over a dull green background. Unlike the two-piece suit, which was intended to be worn over the sniper's ordinary uniform, the coverall was itself a complete uniform.

In winter conditions, Soviet snipers donned simple white pullovers or "overwhites" atop their warm clothing to blend into the Russian landscape. Russian soldiers, the Germans believed, were

RUSSISCHER TARNANZUG



The Russian two-piece sniper's suit, as depicted by German intelligence.



His sniper cape and hood interlaced with grass and reeds, Russian sniper Ivan Merkulov hunts Germans in the Pripet Marshes.



These female snipers are wearing Russia's 1942 one-piece camouflage coverall.



Russia began World War II with overwhite camouflage for its troops.

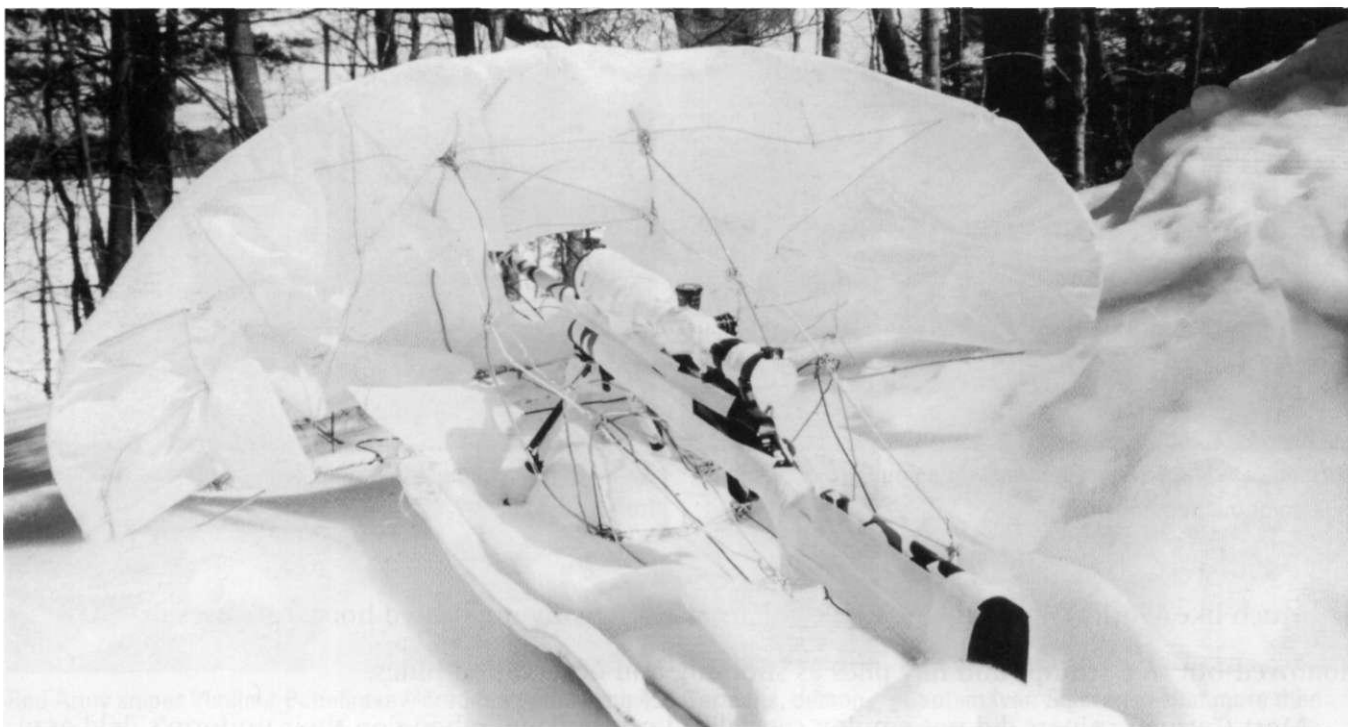


This Russian sniper's camouflage screen blends into his background.

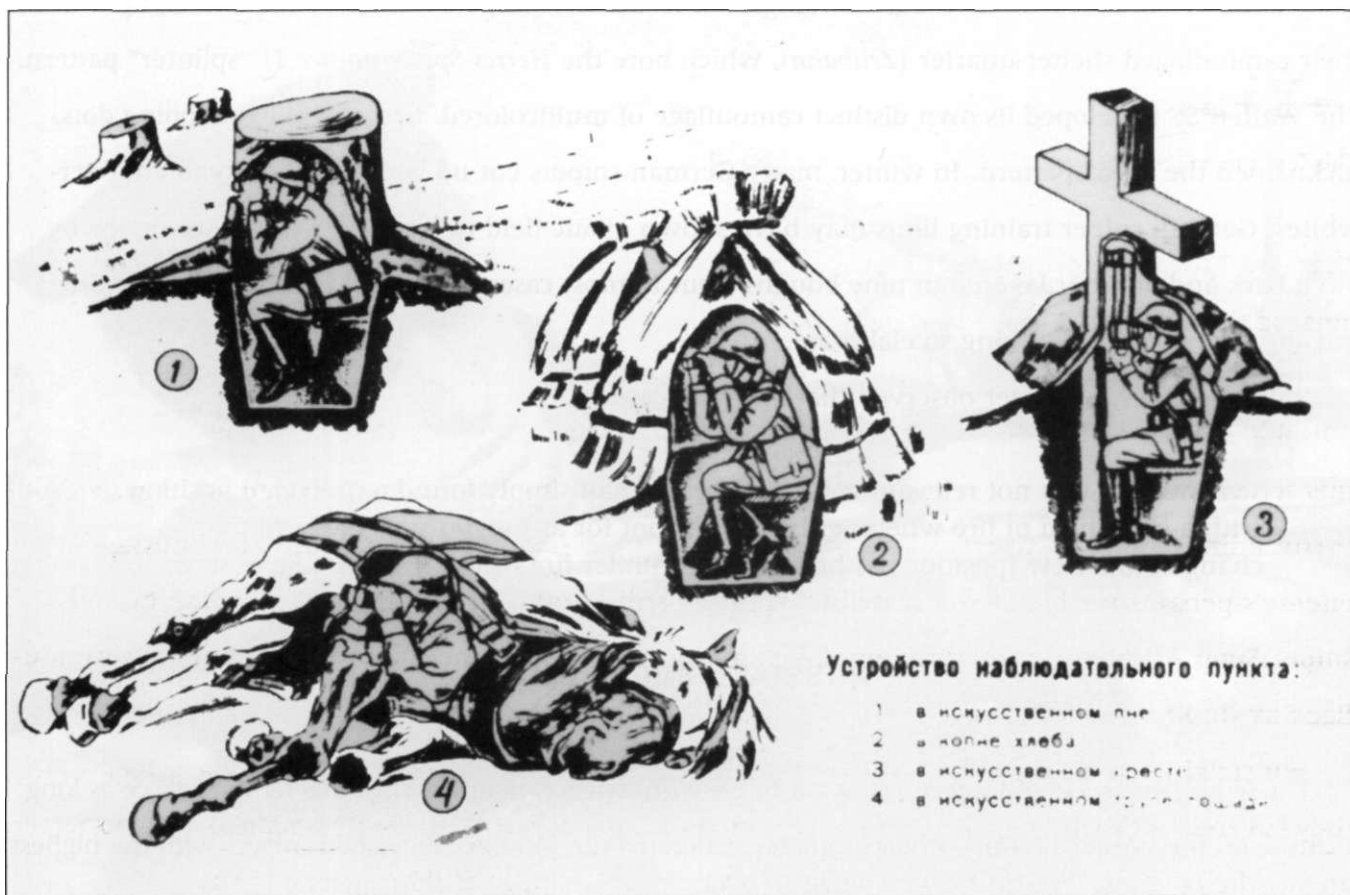
"immune" to severe cold. "Individual snipers hid in the deep snow throughout the day or night," an amazed German officer recalled, "even at temperatures as low as -50 degrees Fahrenheit."

To make themselves less visible to frontal observation, Soviet snipers fashioned a very clever portable screen that folded up umbrella-like for compact storage. Crafted from wire and burlap, this screen was modified each time the sniper used it, so the camouflage texture and colors fit his surroundings. When properly made, it presented a three-dimensional depth that from the enemy's perspective blended a crawling or prone sniper into his background. German master sniper Sepp Allerberger similarly employed an old umbrella frame, flattening his enemy's camouflage by duplicating it.

For stalking across winter snowfields, some Soviet snipers constructed a curved wire screen that they covered with white cloth and then mounted on a white sled. Its center contained a shooting port and a wire cradle for a rifle. Camouflaged in overwhites, a sniper could lie prone in the sled and propel it with his feet.



Using a white screen atop a white sled, the author constructed this Russian-style portable hide for winter hunting.



Russian scouts and snipers were trained to hide in hollowed-out structures, even fake horse carcasses.



Germany's Waffen SS wore effective camouflage containing multicolor overlapping dots.



Many German snipers had to fashion capes and overwhites from bedsheets.

Much like World War I snipers, the Russians also shrewdly duplicated horse carcasses or hollowed-out tree stumps and hay piles as shooting and observation hides.

Most German snipers did not employ specialized camouflage, relying on their uniform's field gray (*feldgrau*) color to fade into their surroundings. Some German snipers fashioned makeshift capes from their camouflaged shelter-quarter (*Zeitbahn*), which bore the *Herres-Splintermuster 31* "splinter" pattern. The Waffen SS developed its own distinct camouflage of multicolored, irregularly overlapping dots, nicknamed the "pea" pattern. In winter, many German snipers cut up bedsheets as expedient overwhites. German sniper training films may have shown exotic field camouflage—a man encircled by birch bark and another layered in pine boughs—but in most cases real snipers had neither the time nor the materials for anything so elaborate.

Indeed, Sepp Allerberger observed that in many cases

"camouflage was not relevant at all. The marksman simply found a protected position with a good field of fire wherever he could, shot for as long as possible, and then changed to a new [position] as he was taken under fire or the fighting line moved."

RUSSIA'S SNIPER ELITE

The length and scale of Eastern Front warfare—with twice as many combatants fighting twice as long as those on the Western Front—understandably generated the most accomplished snipers with the highest kill rates of World War II. Though no sniper roster can claim to be the most authoritative, and wartime



Red Army sniper Vladimir Pchelintsev, credited with killing 456 Germans, demonstrates bolt manipulation for sniper students.



Captain Ivan Sidorenko shot more than 500 Germans, the highest sniper tally in history.



Credited with shooting 307 Germans, sniper Vasili Alexandrovich Titov.



Hero of the USSR, sniper Fyodor Okhlopov was credited with 429 kills.



Combined with his spotter, Vasili Kvachantiradze, Okhlopov killed 644 enemy soldiers.



Red Army sniper Philipp Rubaho was credited with killing 346 enemy.



Lieutenant Ivan Lebedev pauses at the grave of a sniper comrade. Lebedev killed 203 Germans.

propaganda exaggerated some tallies, it is generally agreed that Red Army Captain Ivan Mikhailovich Sidorenko had the highest sniper kills ever recorded, slightly more than 500. (The Finnish sniper Simo Hayha arguably shot more enemy soldiers, but about half were shot with his Soumi submachine gun.)

Captain Sidorenko began the war in a mortar company but scrounged a rifle and taught himself to snipe. Fighting on the Baltic Front, he demonstrated such sniping prowess—once halting a German tank using explosive bullets to set it afire—that he was tapped to command a division-level sniper school, eventually fielding 250 trained men who killed a great many Germans. Despite orders to

restrict himself to teaching, Sidorenko continued sniping and was wounded three times, the final wound putting him out of combat for good. On 4 June 1944, Captain Sidorenko was given his country's highest honor, to be proclaimed a Hero of the Soviet Union.

Including Sidorenko, at least eight Red Army snipers received the USSR Hero's title. One such recipient, Fyodor Matveyevich Okhlopkov, a Yakut big-game hunter from Russia's far east, did not receive his title until 1965, but his great sniping successes—some 429 Germans—were widely recognized during the war. Okhlopkov's teammate, Vasili Shalvovich Kvachantiradze, was credited with 215 kills, making them quite likely the war's deadliest duo. Ohlopkov was wounded 12 times, including a gunshot to the chest that nearly killed him.

Other snipers proclaimed Heroes of the USSR were Mikhail Ivanovich Budenkov, Fyodor Trofimovich Dyachenko, Vasili Ivanovich Golosov, Stepan Vasilievich Petrenko, Piotr Alekseyevich Goncharov, and, of course, Vasili Grigorievich Zaitsev.

The Greatest Stalingrad Sniper

Immortalized by Hollywood's version of his exploits in the 2001 film *Enemy at the Gates*, the real Vasili Grigorievich Zaitsev was a finer shooter and better tactician than the character portrayed by actor Jude Law. Though the film—and wartime Soviet propagandists—took liberties with the story, there can be no question that Zaitsev was Stalingrad's greatest sniper and deserved being proclaimed a Hero of the Soviet Union.

Originally a naval infantryman serving in the Far East, in September 1942 Zaitsev was transferred to the Red Army and assigned to Regiment 1047 at Stalingrad, just before the siege. Growing up a trapper and hunter in the remote Ural Mountains, 27-year-old Zaitsev became a natural hunter of men. Using an ordinary, unscoped Mosin-Nagant at Stalingrad, he quickly killed 30 Germans, causing his superiors to decorate him with the Order of Lenin and rearm him with a scoped M 91/30. Thus, without any specialized training Zaitsev began sniping on 10 October 1942. Over the next three months, he was credited with killing 225 German soldiers as well as training 28 other snipers who inflicted many more casualties.

Zaitsev's famous sniper duel began as a contest over which army would control a water hole in central Stalingrad. To protect their water carriers, German snipers covered the small pond; after losing several Russians to enemy fire there, Soviet snipers, too, arrived to cover the pond. Then snipers on both sides began stalking each other. By the time Zaitsev got involved, the Russians had lost three

The Elusive Nazi Super-Sniper

Critics—who seem to abound in our era—have injected doubt into the famous tale of Vasili Zaitsev's sniper duel at Stalingrad because, they say, no such master German sniper known as Heinz Thorvald or Erwin Konig ever existed. And if there was no Thorvald/Konig, ergo, they conclude, there was no duel with a master sniper.

I think that's pretty faulty logic on several levels.

First, it's unlikely that enough German records survived World War II's final bombardments and the destruction in Berlin to conclude with certainty which German snipers fought at Stalingrad, especially if they died there. Actually, as I learned while researching this book, there's quite a shortage of information on *any* German snipers, due to wartime destruction and the reluctance by sniper veterans to tell their stories. Very roughly, I estimate that 50,000 Germans received sniper training, a conservative number since it's documented that 6,000 sniper graduates were produced monthly by early 1945. That's an enormous number of snipers, yet only *one book* exists—a single biography—telling the story of a World War II German sniper. And though an assortment of "sniper kill" rosters pervade the Internet, they list only a handful of Germans. How is it that Matthais Hetzenauer could be listed with 345 kills and Josef "Sepp" Allerberger with 257 kills, but almost no others? Where are all their comrades who shot, say, 305 or 280 or 331?

The truth is, the others snipers' records and their existence were lost in the smoking ruins of Berlin. We will never know who they were or what they achieved.

I find it entirely credible that Germany had resourceful, smart, and superb marksmen at Stalingrad, whose sniping successes inevitably would launch a countersniper hunt, leading to exactly the sort of one-on-one shootout attributed to Vasili Zaitsev. Once that great Urals hunter shot his foe, however, Soviet propagandists spun the story into an elaborate and symbolic epic, complete with a named SS master sniper, school commandant, and so on. Even if one ignores these propaganda trappings, it still remains that Vasili Zaitsev hunted and killed a particularly skillful and dangerous German sniper at Stalingrad and certainly deserved being proclaimed a Hero of the USSR.

snipers in as many days to a German "super sniper." But already that German had moved on, to where Zaitsev did not know.

Zaitsev, along with teammate Nikolai Kulikov and a number of teams, began a methodical hunt that lasted several days. "A sniper who cannot observe from hiding," Zaitsev cautioned his men, "is not a sniper but a mere target for the enemy." Apparently one team forgot this, for the mysterious German sniper shot Red Army sniper Morozov's rifle scope and wounded his teammate, Sahikin.

Hoping the German had not moved, the next day Zaitsev and Kulikov set up. It took two days before, at last, the hidden sniper fired at a nearby Russian political officer, and Zaitsev thought he'd figured out where the German was hiding: under a sheet of iron amid rubble piles. A day passed



Hero of the Soviet Union Vasili Zaitsev, Russia's greatest Stalingrad sniper.



Soviet generals examine Zaitsev's deadly rifle while he watches.



Above: Zaitsev also mounted a scope atop a heavy 14.5mm rifle for antimateriel sniping.

Right: Displayed today at the Stalingrad War Museum, this is one of Zaitsev's rifles. (Courtesy of John Lu.)

before the Russians could lure another shot; in the late afternoon's slanting sunlight, beneath the iron sheet, Zaitsev spotted the reflective glint off a rifle scope. With one precise shot he ended the duel.

In addition to his famous duel, which grew into a propagan-



dist's mythical tale (see "The Sniper Movement," page 420), Zaitsev shot and killed another 10 German snipers and undoubtedly would have tallied considerably more except he was seriously wounded and almost lost the sight of his right (shooting) eye. His shooting career was over, but Zaitsev continued to contribute by writing two sniper textbooks, training more snipers, and conducting shooting experiments. To the best of my knowledge, he was the first sniper ever to place a scope on a heavy rifle—a Russian 14.5mm PTRS 1941 antitank rifle—for antimateriel shooting.

Many other Russian snipers distinguished themselves during World War II, with some rosters citing 30 or more, who each shot at least 250 Germans. While the likelihood of propaganda inflating these claims encourages skepticism, my research uncovered quite a few more claims that have not appeared on any rosters. For instance, Staff Sergeant N.F. Semyonov, a "renowned sniper" of the 169th Rifle Regiment, 86th Rifle Division, was cited in World War II Russian media for killing "218 fascists." The U.S. Library of Congress photo collection includes an image of "Red Army Sergeant Dorzhiev," who is credited with killing 181 Germans at Leningrad, but I couldn't find his name on any roster.

Russia's Other Snipers

One of Sepp Allerberger's most dramatic engagements pitted him against an estimated company of 50 concealed Russian "tree snipers." The savvy Allerberger arranged for several comrades to display fake heads to lure enemy fire and for five machine gunners to fire at regular intervals to mask the sound of his well-aimed shots. When all was ready, he stalked forward to a suitable firing position, carefully set up his fanlike umbrella-camouflage, and signaled the soldiers to raise the fake heads. It was, Allerberger thought, like shooting fish in a barrel—over and over, the Russians compromised their treetop positions to shoot the heads, and one by one, masked by noisy machine gun fire, he shot the snipers and saw them fall to the ground. In an hour he'd shot 18 Russian snipers, by which time the rest had withdrawn. When the Germans went forward to view the Russian bodies, to their total surprise, they found dead women—*all the snipers had been women!* And very inexperienced, Allerberger believed, their enthusiasm overriding the good sense not to fire from treetops where, any knowledgeable sniper realized, you can be too easily spotted and shot. Those who escaped would never make that mistake again.

Though this was Allerberger's first exposure to Russia's women snipers, his experience was not typical. As their wartime record would demonstrate, these resolute—and often deadly accurate—women did their utmost to reap vengeance against this enemy who had invaded their Mother Russia.

"The fighting methods of these female beasts showed itself in treacherous and dangerous ways," remarked a German veteran. "They lie concealed in heaps of straw, and shoot us in the back when we pass by."



Posthumously declared Heroines of the Soviet Union, this stamp displays the final fight of snipers Mariya Polivanova and Natalya Kovshova.

In addition to being more selective than their Russian male counterparts—only 2,000 women would be snipers—they underwent considerably longer training of up to nine months. A special women's sniper course was instituted near Moscow in the village of Veshnyaki, where the students studied and exercised 10 to 12 hours per day, seven days a week. The women learned to love their rifles, giving them pet names and even writing songs about them. When each class graduated, the new women snipers were shipped off

as 50-sniper groups—sometimes organized as separate companies—and assigned to army-level or front-level commands. As Allerberger discovered, at times these companies operated as independent units, but mostly they acted as small detachments in support of frontline battalions or brigades.

Other female snipers were trained at the front, as was the case with Tania Chernova, one of Vasili Zaitsev's Stalingrad students who also was his lover until she was badly wounded and evacuated. By then she had killed 80 Germans.

These women's ranks included some of Russia's most revered heroines of World War II. Roza Yegorovna Shanina, a graduate of the Women's Sniper Academy at Podolsk, shot 54 Germans, including 12 in a single battle. After her death by enemy fire on 28 January 1945, a street in Archangelsk was named for her.

Six women snipers received their country's highest honor, to be declared a Hero of the USSR. The sniper team of Mariya Semenovna Polivanova and Natalya Venediktovna Kovshova, serving with the 528th Rifle Regiment, had a combined count of 300 enemy KIA by August 1942. When they were suddenly surrounded by Germans, they shot until their ammunition was expended, and then, rather than surrender, they detonated hand grenades to kill themselves and the enemy soldiers about to capture them. In addition to being declared Heroines of the USSR, they were featured on a wartime postage stamp, and each had a Moscow street named after her.

Russia's Greatest Female Sniper

If you had asked any American in 1943 to name a Russian sniper, odds are that he'd have heard just one name: Ludmilla Pavlichenko. And with good reason.

Born and raised in the Ukraine, while a teenager Pavlichenko joined the OSOAVIAHIM youth organization and discovered an aptitude for rifle shooting, even earning a Voroshilov Sharpshooter Badge. When the Germans invaded in June 1941, she was a newlywed 24-year-old history major at Kiev State University. Immediately, she walked into a Red Army recruiting office and volunteered to be a sniper. Looking at the neatly dressed, attractive young woman, the recruiter suggested instead that she enlist in the nursing corps—but she would hear none of that. Pavlichenko presented her OSOAVIAHIM card, verifying that she had qualified as a Voroshilov Sharpshooter, and insisted on being a sniper. This time she was accepted.

Two months later she deployed with the Red Army's 25th Infantry Division in defense of the Black Sea coastal town of Odessa. Armed with a SVT-40 Tokarev semiautomatic sniper rifle topped by a 3.5x PU scope, almost immediately she began shooting German soldiers. Over the next 50 days of intense fighting, she was credited with killing 257 enemy, apparently the highest toll by any sniper in that region. The president of the USSR's Supreme Soviet, Mikhail Kalinin, visited Odessa and presented her with Russia's second-highest award, the Order of Lenin. But she had no heart for celebrating—she had just learned that her young husband had been killed in action.



The USSR's greatest female sniper, Ludmilla Pavlichenko.



Sniper Pavlichenko during her U.S. tour, with First Lady Eleanor Roosevelt and Supreme Court Justice Robert H. Jackson.

As defensive positions around Odessa collapsed, she withdrew with Red Army units eastward onto the Crimean Peninsula and the fortress city of Sevastopol. Here again her deadly aim, patience, and attentiveness took a bloody toll among the attacking Germans. By June 1942 she had twice suffered minor injuries when exploding mortar shells wounded her. By then her tally had climbed to 309 Germans, including some three dozen enemy snipers. Along with other wounded soldiers, she was evacuated by submarine just before the Germans overran Sevastopol.



Fictional Sergeant Moskoroff (Eve Arden) shoots a pigeon from her hotel room, watched by (left to right) Jane Wyman, Alexis Smith, and Ann Sheridan in the 1944 film *Doughgirls*.

After recovering from her wounds, the Soviet government selected Ludmilla as a perfect Red Army ambassador to tour the United States and drum up support for the Russian war effort. Thus, Pavlichenko had the distinction of being the first Soviet citizen to be greeted at the White House, where she was warmly welcomed by President and Mrs. Roosevelt. Afterward, she and the First Lady toured the country together on a war bond drive, including major public rallies in Washington, San Francisco, Seattle, and New York. At Madison Square Garden, union workers from Colt Firearms presented Pavlichenko with a .45 automatic pistol; at another stop she

received a scoped Winchester rifle, which is displayed today in a Moscow museum. Folk singer Woody Guthrie even wrote a song in her honor, "Miss Pavlichenko," which included this verse:

*In the mountains and the canyons quiet as a deer
Down in the forests knowing no fear
You lift up your sight and down comes a "Hun"
Three hundred Nazis fell by your gun.*



Until he learned of her Voroshilov Sharpshooter Badge, a Red Army recruiter thought that Pavlichenko was too attractive to be a sniper.



So popular was Pavlichenko that she inspired the 1944 Warner Brothers film *Doughgirls*, a romantic comedy in which a Russian woman sniper touring America, Nataliya Moskoroff (played by Eve Arden), helps three young women get married. By the time she finished her tour, Pavlichenko's name was an American household word, known to most people across the land.

Shortly after returning to Russia, the newly commissioned Major Pavlichenko received her country's highest award, being declared a Hero of the Soviet Union. Then she spent the rest of the war instructing snipers and afterward worked as a researcher at the Red Navy's headquarters in Moscow. She passed away in 1974 at age 58, but Ludmilla was not forgotten—two years later her country memorialized her with a postage stamp (left).



Above: Red Army sniper Ziba Ganiyeva has a prewar rifle with PEM scope.



Right: A sniper's cape draped over her shoulders, this woman wears a Glory Medal, of similar precedence as the U.S. Silver Star.



A company of female Russian snipers, led by Captain N.A. Lobkovskaya (front, right).



Above: Czech sniper Marie Ljalkova served with a Czech unit attached to the Soviet army.



Top right: A heavily camouflaged Red Army female sniper team.

Right: Wearing the Order of Glory Medal, Sergeant Roza Shanina was credited with 54 kills before she died in combat.



Other USSR Heroines included Tatyana Nikolayevna Baramzina, captured by the Germans, tortured, and then summarily shot for revealing nothing; Tatyana Ignatovna Kostyrina, who shot 120 enemy soldiers and was killed in hand-to-hand fighting; Allya Moldagulova, who died fighting after shooting 91 Germans; and, Russia's most famous woman sniper, Ludmilla Mikhailovna Pavlichenko (see "Russia's Greatest Female Sniper," page 452).

GERMANY'S GREATEST EASTERN FRONT SNIPERS

It's even more difficult to be certain of Germany's most accomplished snipers. As explained in an earlier sidebar, the Third Reich's fiery destruction consumed mountains of military and personnel records, precluding the orderly search of files. Probably because they received one of Germany's highest decorations, the Knight's Cross of the Iron Cross, we at least have details on two of the Wehrmacht's greatest snipers, Matthais Hetzenauer and Sepp Allerberger.

Only 19 years old when he arrived on the Eastern Front, Matthais Hetzenauer displayed such great marksmanship and enthusiasm that his commander sent him to the sniper course at Seetaleralpe in Austria. Hetzenauer returned to his unit, the 3rd Mountain Division, with an exceptionally accurate K-98 Mauser topped by a 6x scope. Using this rifle and scope, he told an interviewer



Awarded two Iron Crosses and the Knight's Cross, Matthais Hetzenauer was the most accomplished known German sniper of World War II.



Sniper Josef "Sepp" Allergerger, awarded the Knight's Cross, was credited with shooting 257 Russians.

The German Sniper's Ten Commandments



The "Ten Commandments" offered practical advice to German snipers in the war's final, tumultuous year.

German snipers had been fighting three years on the Eastern Front when the following "Ten Commandments" were published in 1944. Reminiscent of Rogers Rangers' Standing Orders, these practical advisements were simple to understand and apply and effective in application—yet that first commandment's call for fanaticism hints at the desperation that German forces were beginning to feel.

1. Fight fanatical.
2. Shoot calm and contemplated, fast shots lead nowhere, concentrate on the hit.
3. Your greatest opponent is the enemy sniper, outsmart him.
4. Always only fire one shot from your position, if not you will be discovered.
5. The trench tool [shovel] prolongs your life.
6. Practice in judging distance.
7. Become a master in camouflage and terrain usage.
8. Practice constantly, behind the front and in the homeland, your shooting skills.
9. Never let go of your sniper rifle.
10. Survival is ten times camouflage and one time firing.

in 1967, he succeeded in hitting enemy soldiers 65 percent of the time at 400 meters or closer. When firing at 600 meters, he hit his targets once in every three shots. Because he sometimes fought the enemy at close range—100 meters or less—Hetzenauer also carried a G-43 semiauto rifle with a ZF 4 scope. With these rifles, he was credited with shooting 345 enemy soldiers, making him the most accomplished German sniper of World War II. In addition to a wound badge and the Sniper's Badge Level III with gold border, Hetzenauer was twice awarded the Iron Cross and then given the Knight's Cross of the Iron Cross only three weeks before the German surrender. Interestingly, Hetzenauer did

not place particular value in shooting large numbers of enemy soldiers. "The best success for snipers," he said in the 1967 interview, "did not reside in the number of hits, but in the damage caused the enemy by shooting commanders or other important men."

The second-ranked German sniper, Sepp Allerberger, agreed with him, though, like Hetzenauer, he sent many Russians of all ranks to their graves. Originally Allerberger was a machine gunner on the Eastern Front; then, while recovering from a wound, he practiced firing a captured Russian M 91/30 sniper rifle. When he returned to duty, his commander agreed to let him try his hand at sniping—and Allerberger immediately eliminated an enemy sniper. From then on, he was a sniper, although he did not attend a formal sniper course until he'd already shot 27 enemy soldiers.

Like Hetzenauer, Allerberger's primary weapon was a K-98 Mauser sniper rifle with a 6x scope, but he also carried a scoped G-43 rifle. Allerberger shot exceptionally well at medium-range, where the great majority of his engagements occurred. At 400 meters or less, he estimated that he hit his

The German Sniper Badge

Unique among World War II's major combatants,

Germany recognized its most accomplished combat snipers with a distinctive badge. Personally authorized by Adolf Hitler on 20 August 1944, the *Scharfschuetzen Abzeichen* also was intended to be "an incentive for an increase in the [sniping] efforts obtained up to this point."

It was a most difficult award to earn. Successful shots recorded prior to 1 September 1944 did not count, although the Führer's order decreed that these could be "considered toward the granting of Iron Crosses." Kills accrued in "close combat" were not recognized either, with only *witnessed*, deliberate shots at medium and long-range applicable to the badge. And it had to be witnessed by an officer, a noncommissioned officer, or two soldiers.

An oval cloth badge displaying a vigilant eagle behind oak leaves, the Abzeichen was to be worn on the recipient's right jacket sleeve, just above the cuff. Awarded at three levels, the first degree recognized "20 enemies shot," while the second degree, which added a silver cord to the border, recognized "40 enemies shot." The highest level, which required at least 60 enemy KIA, had a gold border.

The German sniper badge commanded great respect among combat soldiers, but very few proud recipients ever sewed it on their sleeves, lest they be captured alive. On the Eastern Front in particular, that badge marked its recipient for summary execution if he was captured, a hard reality that snipers well understood.



Several armies awarded sniper marksmanship badges, but this German badge commended kills by snipers.

targets 80 percent of the time. At 600 meters, he estimated, that fell off to 20 percent hits. By the end of hostilities, Allerberger was credited with shooting 257 Russian soldiers. In addition to earning a wound badge and the Sniper's Badge Level III with gold border, just before Germany's surrender he was awarded the Knight's Cross of the Iron Cross. His book, *Sniper on the Eastern Front*, is the only existing first-person account of a German sniper from World War II.

MASSES OF SNIPERS

More so than any other theater, the Eastern Front's sniper war escalated and grew, with far more optically equipped marksmen than anyplace else on earth. By early 1945, the USSR had produced and fielded more than 400,000 sniper rifles, most of which probably were still in action. The German army's sniper effort had grown, too, so that the Reich then had an astonishing 30 "sharpshooter" schools and courses with a capacity of 200 students each. This meant that in those final, bloody months, every four weeks another 6,000 German snipers were sent to the front, mostly the Eastern Front. The numbers had grown enormously, but it was simply too late for the Wehrmacht.

In the Far East, however, another sniping war had been under way. The soldiers of the Rising Sun, who had done poorly against the Soviet army in 1939 in Manchuria, had learned their costly lessons and fielded their own snipers. But this time they were fighting another enemy, the United States of America and its allies.



A squad of German snipers late in the war, all armed with the G-43 semiautomatic rifle.

Albert Speer's Close Call

Among Adolf Hitler's innermost circle of Nazi cohorts—Goering, Himmler, Bormann, and Goebbels—stood Albert Speer, the Third Reich's minister of armaments. Herr Speer not only oversaw the production of aircraft, tanks, and U-boats, but also personally controlled the Reich's physical resources, from oil to steel to electric power, and decided how it would be used to fight the war. A brilliant manager and an architect by training, Speer miraculously boosted defense production despite unrelenting Allied bombing. Here was a man whose loss would have severely affected the German war effort.

In December 1943, during a tour of the Eastern Front, *Reichsminister* Speer descended into a bunker to observe the demonstration of a new 150mm howitzer against a Soviet strong point. As anticipated, the falling shells utterly destroyed a bunker, which Speer confirmed while gazing through binoculars. Beside him a curious lance corporal, too, pushed his face to the aperture to see what the VIPs were watching.

Some 400 yards away, a Russian sniper spotted movement in the German bunker slit, with two blobs that had to be human heads. Having no idea who was who, the sniper picked one, aimed carefully, and squeezed his Mosin-Nagant's trigger. His bullet hit true, instantly killing his target, who "collapsed without a sound."

It was the lance corporal.

Reichsminister Speer was not even slightly injured. "Oddly enough," he noted in his diary, "this was the first time I had been confronted with the reality of the war." The Russian sniper, of course, had no idea how close he'd come.



Albert Speer (left), Nazi Germany's armaments minister and one of the Third Reich's most powerful men, visiting Paris with the Führer.

Skorzeny's Sniper Experiment

In late January 1945, with powerful Russian armies advancing across Poland, it looked like the Third Reich might fall in a few weeks. Already Soviet scouts had reached Germany's last natural barrier, the Oder River, only 40 miles east of Berlin.

At this critical moment, SS Chief Heinrich Himmler called on the officer he thought his country's most resourceful, the famed commando leader Otto Skorzeny, to secure a bridgehead across the Oder, at Schwedt, to threaten the Soviet armies massing near Berlin with a possible counterattack and thus buy time to improve defenses elsewhere.

This was quite a challenge even for Skorzeny, Germany's "Commando Extraordinary." It was a division-size mission, requiring 10,000 to 15,000 troops, yet Himmler could provide only a handful. Skorzeny would have to find his own forces and improvise.

Improvise he did, creating infantry battalions out of thin air—everything from dockworkers in Hamburg to Luftwaffe pilots and mechanics who had no planes. From old SS friends, he borrowed an antitank battalion and recruited an SS unit of ethnic Germans from Romania. These and other small units he assembled around the nucleus of one SS parachute battalion—and, most unusually, one company of snipers (apparently the cadre and students from a sniper school at Friedenthal), commanded by an *Oberleutnant* Odo Wilscher.

On 1 February 1945, Skorzeny's newly named Schwedt division—swollen to 15,000 troops—occupied defensive positions across the Oder River. Especially, Skorzeny took care in positioning his 100-man sniper company, realizing "there had to be shooting at Schwedt—and accurate shooting at that." To this experienced commando leader, massing these superb marksmen at a critical position made good sense. Instead of employing snipers piecemeal, Skorzeny previously had asked generals "why didn't they systematically commit the snipers that each division possessed?" This he chose to do at Schwedt, concentrating all his snipers on the most critical approach route.

In his autobiography, Skorzeny explained that each night, the sniper commander, *Oberleutnant* Wilscher,



Ever innovative, the Third Reich's greatest commando leader, Colonel Otto Skorzeny.

"hid his snipers in groups of two in no-man's-land," their fire carefully integrated and overlapping for mutual support. When Russian infantry were engaged and attempted to attack a sniper team, other hidden teams on their flanks or even their rear opened fire, confusing and repulsing the Soviet infantrymen. Wilscher also put snipers on broken-away ice sheets on the Oder River, concealing them with wood and branches. "The floating islands offered Wilscher's riflemen natural and mobile cover," Skorzeny wrote.

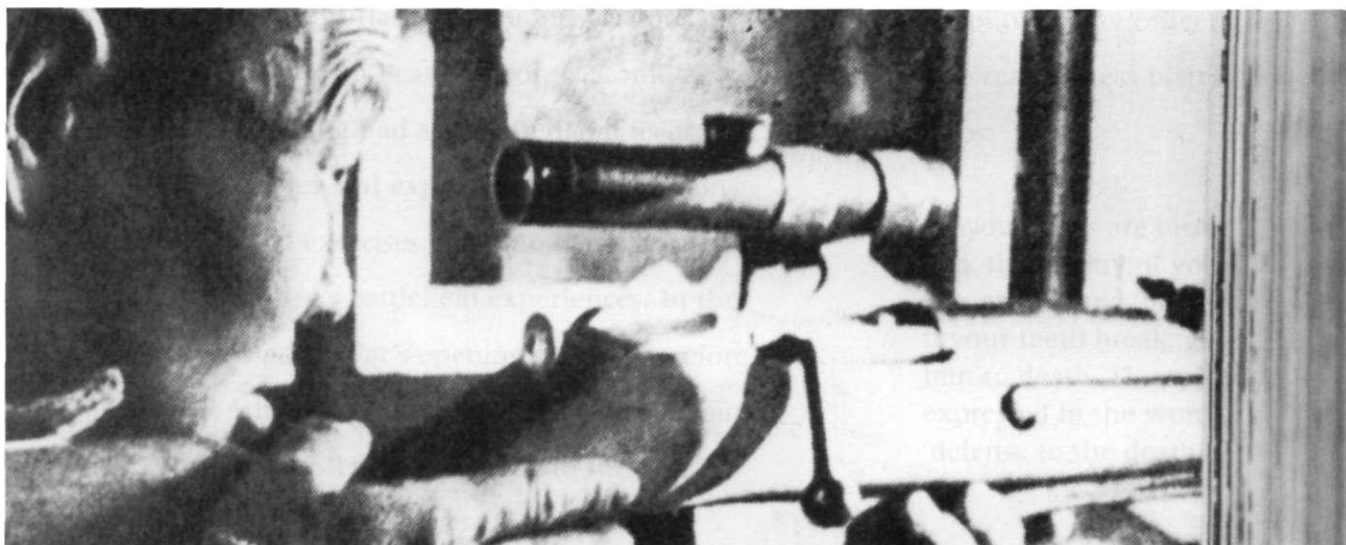
Exactly as planned, Skorzeny's bridgehead drew enormous Soviet forces—he estimated his men were outnumbered 15 to 1—but they held their ground for an astonishing 30 days, a full month, and then withdrew across the Oder. Undoubtedly, this operation disrupted the Red Army's offensive timetable, buying Germany weeks to improve its defenses. As for that 100-man company of snipers, Skorzeny concluded that these marksmen "weakened the enemy considerably. I estimated that 25% of our defensive success was attributable to the snipers."



His silhouette obscured by burlap sackcloth, a German sniper fires on the Eastern Front.



A German sniper team on the Eastern Front.



An Asiatic Russian fires from a window in Stalingrad, 1942.

SNIPING IN THE PACIFIC

THE JAPANESE SNIPER

At 8 A.M. on 7 December 1941, World War II finally came to the United States. By then, however, the Imperial Japanese Army already had been fighting in China for four years and had clashed with Soviet forces in Manchuria. In the months before the attack on Pearl Harbor, U.S. military training had accelerated and its armed forces had expanded, but simulations and exercises could not compare to Japan's battlefield experiences. In the Pacific War's opening stages, therefore, the initial successes—including sniping successes—would flow to the better-prepared Japanese.

What distinguished the Japanese sniper from his foreign counterparts was not his marksmanship—which often was found wanting—but his attitude, displaying a lethal resolution not found elsewhere in World War II. As the rifle-armed counterpart to the kamikaze pilot, Army officers demanded zealousness instructing their troops:

"If your arms are broken, kick the enemy; if your legs are injured, bite him; if your teeth break, glare him to death. The spirit is expressed in the words, 'defense to the death.'"

Sniping on Bataan

The Philippines' Bataan Peninsula became infamous for the 1942 Death March in which thousands of American POWs were mistreated or outright murdered. However, Bataan was also a site of inspiring courage and great deeds by American snipers and countersnipers who gave their all despite being cut off and surviving on half-rations.

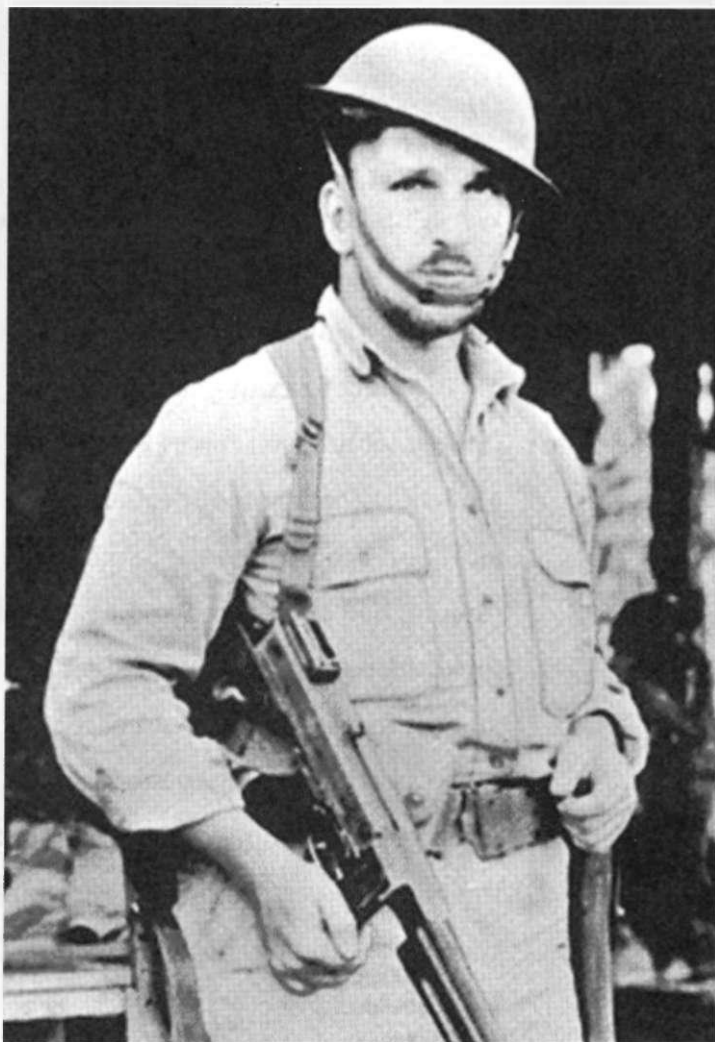
When Japanese snipers first appeared at Bataan, Colonel Edmund Lilly, a battalion commander, found these were not ordinary soldiers but

"well trained as marksmen and furnished with concentrated foods and lots of other special equipment. . . . These were seasoned troops and highly trained in their specialized work, being especially chosen for their courage. They were adept in the art of camouflage. They wore nets over their helmets and their uniforms as well as these helmet nets entwined with foliage which made them blend with the grass and trees and extremely difficult to see."

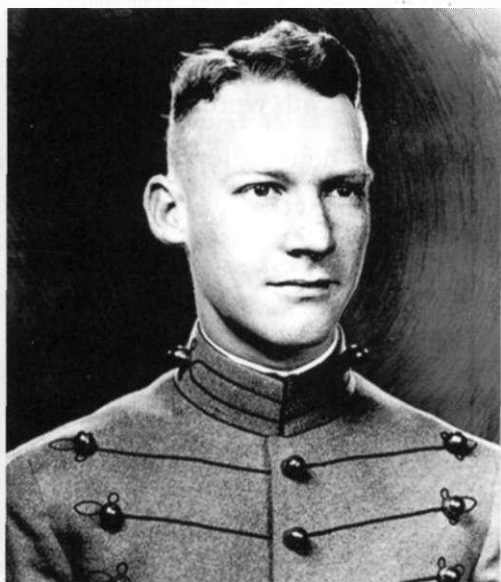
To counter enemy snipers, Colonel Lilly reported, "We organized a sniper company of volunteers from the various rifle companies." These 87 picked marksmen were led by Captain Arthur Wermuth, a husky Northwestern University football star who'd grown up on a South Dakota ranch. The daring captain often slipped behind Japanese lines with his favorite weapon, a Thompson submachine gun, and two .45 pistols slung from his hips.

Wermuth's snipers operated like guerrillas, staging forays that confused, killed, and angered the Japanese. After one particularly brilliant mission, General Douglas MacArthur called in Wermuth to present him the Distinguished Service Cross. *Time* magazine called Wermuth "A One Man Blitz," and soon he was nicknamed Bataan's "One Man Army." Perhaps the greatest compliment came from his Japanese foes, who dubbed this elusive captain *Bataan ne Yure* ("The Ghost of Bataan"). In his 1943 book, *These Men Shall Never Die*, Lowell Thomas wrote that Captain Wermuth operated

"deep in the rear of the enemy positions, where an American soldier would be least expected



"The Ghost of Bataan"—Captain Arthur A. Wermuth.



Second Lieutenant Alexander R. Nininger, West Point class of 1941, the Army's first Medal of Honor recipient in World War II.

and where the Jap[anese] hunting would be the best. Wermuth had a weird knack of getting through . . . creeping and shooting his way through when necessary. He had a genius for concealment and cover . . ."

Captain Wermuth and his volunteer sharpshooters are estimated to have killed 500 enemy, but even that may have understated their effectiveness.

Serving in the same battalion as Wermuth was Lieutenant Arthur "Sandy" Nininger, a brand-new second lieutenant fresh out of West Point. On the night of 11 January 1942, a large Japanese force crept through a cane field and then suddenly launched a banzai human-wave assault into the American lines. This was narrowly repulsed, but in the darkness dozens of enemy snipers remained behind to climb trees and hide in the undergrowth to shoot GIs without warning, forming unsecured pockets behind the lines.

Lieutenant Nininger, Colonel Lilly recorded in his journal,

"sensing the need for some counter-sniper work in order to restore morale, and entirely on his own initiative, took a number (3 or 4) of volunteers . . . and worked the line of trees along the [front] in the left of the regimental position. He and his men were successful in ridding the area of a number of these snipers and he was shot and killed while performing this valuable service later in the morning."

Actually, Lieutenant Nininger's final fight was a bit more dramatic, as cited in his posthumous Medal of Honor citation:

"Enemy snipers in trees and foxholes had stopped a counterattack to regain part of the [lost] position. In hand-to-hand fighting, 2nd Lt. Nininger repeatedly forced his way to and into the hostile position. Though exposed to heavy enemy fire, he continued to attack with rifle and grenades and succeeded in destroying several enemy groups in foxholes and enemy snipers. Although wounded 3 times, he continued his attacks until he was killed after pushing alone far within the enemy position. When his body was found after recapture of the position, 1 enemy officer and 2 enemy soldiers lay dead around him."

Lieutenant Nininger was the first Army recipient of the nation's highest honor in World War II.

And what became of Captain Wermuth, the Ghost of Bataan? Repeatedly wounded, on the day that Bataan surrendered he was in a hospital bed with a bullet hole through his lung. Then he disappeared into the Japanese POW camp system. Three and a half years later, among the released POWs stood Arthur Wermuth, the "One Man Army," the husky Northwestern football star, who now weighed an emaciated 103 pounds, his condition a testament to the years of brutality he had endured. And yet, thanks to an indomitable will, he had survived.

Combine such zeal with a godlike regard for the emperor and adherence to the Bushido warrior's code—which declared surrender loathsome and death honorable—and you had an extremely dangerous foe. “We want to die gloriously,” a Japanese directive declared. “We hope for a death worthy of a Samurai.”

Often cut off without supplies or support, the Japanese sniper suffered deprivation and discomfort without complaint and displayed great patience. In the Solomon Islands, U.S. Marines encountered many enemy snipers who crouched or lay hidden for up to three days just to fire one shot—fully expecting they would be killed immediately afterward.

Japanese Sniper Training

Japanese platoon leaders selected sniper candidates, with the top criterion being marksmanship. Most candidates (80 percent) were “superior private,” a rank equivalent to an American corporal. Wearing glasses did not disqualify a soldier from sniping duty.

Sniper training was considered an extension of, or more advanced phase of, infantry training. Interestingly, U.S. intelligence learned that “men of short stature were preferred” because they “present less conspicuous targets to hostile fire.”

Sniper training was a regimental-level course, where large Japanese forces were based in a relatively small area. When units were spread over a wide area, such as a chain of islands, each battalion held its own sniper training. Either way, it was a month-long course, offered once every six months.

Training began with the sniper candidate test-firing his rifle from a fixed rest and carefully recording his groups at an assortment of distances. “Hence,” a U.S. report noted, “it is not surprising that sniper candidates were taught to ‘know’ their rifles.”

Sniper students learned and practiced range estimation from 200 to 600 yards. Classes extensively covered camouflage, teaching students to conceal themselves with mosquito netting and tied-on natural foliage. Every morning began with live-fire practice, with an officer working one-on-one with each student, who fired, on average, 50 rounds per day. Much firing involved open sights, but at ranges of 300 yards or more, students used rifle scopes of either 2.5x or 4x magnification. Upon graduation, the new sniper returned to his unit with a new Arisaka sniper rifle and the confidence to use it.

Japanese Sniper Tactics and Techniques

The Japanese assigned one trained sniper to each 11-man light machine gun squad, with one such squad in each infantry platoon—which explains why snipers often were encountered with or near

Japan's Farthest Conquest

In early April 1944, the Imperial Japanese Army struck westward into India from occupied Burma. Advancing 55 miles into India, Lieutenant General Renya Mutaguchi's 31st Division attacked the provincial capital of Kohima, besieging British and Indian troops in what was called the "Stalingrad of the East."

For eight weeks the British and Japanese slugged it out along the high ground of Kohima Ridge, around the British deputy commissioner's bungalow and tennis court. "The lie of the land made it impossible to move by day because of Japanese snipers," reported the commander of B Company, 1st Royal Berkshires. His company alone lost 40 of its 100 men on Kohima Ridge.

At one spot overlooking the tennis court stood a cherry tree, and, hidden in its spring foliage, a Japanese sniper fired repeatedly into British lines. Incredibly, that sniper in that tree represented the most westward advance of Japanese forces in World War II.

But it was not to last long. A Gurkha rifleman, Bhanubhakta Gurung, "exposed himself defiantly on open ground and thus spotted the sniper, who was eventually shot down from the tree," according to a Nepalese newspaper account. By 15 May the Japanese began withdrawing, leaving behind 5,000 dead.

Today another cherry tree stands on Kohima Ridge, grown from a cutting of the original made famous that April so long ago. A plaque on it reads:

"The original tree was used as a sniper's post by the Japanese and was destroyed in the fighting which raged around the tennis court, and marks the limit of the Japanese advance into India."

machine gun positions. If the sniper became a casualty, his rifle immediately was given to his squad's 11th member, an ammo bearer, who often was a sniper graduate himself.

According to captured documents, the Japanese sniper's missions were as follows:

1. To kill or capture hostile personnel, especially unit leaders and snipers
2. To neutralize or destroy hostile installations that might obstruct the successful completion of a Japanese unit's mission
3. To destroy the opposition's heavy weapons and the personnel manning them
4. To deal effectively with all targets of opportunity that might come within range

Due to the Arisaka rifle's considerable length, Japanese snipers preferred firing prone supported, whether using its attached steel-wire monopod or a forked stick, or just carefully resting it on a tree limb. They carefully selected their ground positions for concealment more so than fields of fire, making them all but impossible to spot and often in the most unpredictable locations. Sometimes they tunneled from the back side of a huge tree, down between its roots, and then fired through an aperture only 6 inches square. In the Philippines, Japanese snipers operated in hidden nests of three or four so they could deliver one volley and then disappear. "The fire was extremely accurate," a wartime report observed.

Spider holes, also called "trapdoor" positions, were dug "just deep enough to kneel and cover with a camouflage lid which was made from small tree limbs and grass," a Marine veteran explained. "This would allow them to rise up, pick a target, shoot and disappear from sight."

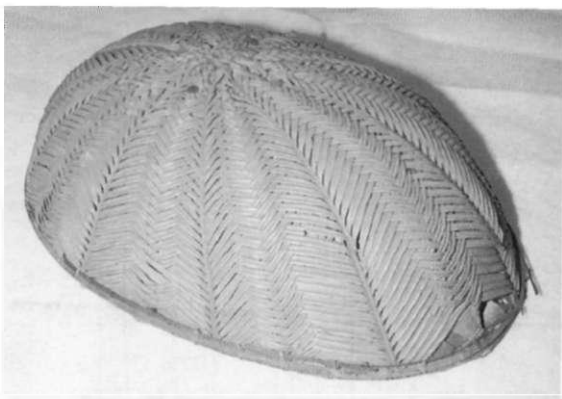
The Japanese sniper's ability to blend or disappear had much to do with his camouflage aids, which included helmet and body nets made of mosquito netting, colored straw, even camouflaged gloves. To enhance this, he often cut fresh, leafy twigs and branches to stick in pockets and button-



Nearly invisible, a U.S. officer points to a well-camouflaged Japanese bunker in the Solomon Islands.



This elaborate sniper's cape used woven palm fiber to help the sniper blend into the treetops. (Courtesy of Fort Benning Infantry Museum.)



This Japanese "sniper hat," woven from palm leaves, held mosquito netting and foliage to conceal a treetop sniper.

holes. Some snipers sewed cord loops on their uniforms to hold foliage, while others made portable screens of lashed bamboo and attached foliage.

Treetop snipers often wore a vest of woven palm fiber that perfectly matched their surroundings and hid beneath palm tree fronds, tying themselves into position so they could handle their rifles freely and even sleep while in position. A cord held the sniper's rifle so he wouldn't drop it inadvertently or if wounded. They were equipped with special tree-climbing spikes that they tied on to their sneaker-style jungle boots.



A master of camouflage, the Japanese sniper went to great lengths to blend into his surroundings. (Original art by Tami Anderson.)

Once in position, treetop snipers were extremely difficult to spot. On Makin Atoll, an intelligence report noted that enemy snipers

“had cleverly camouflaged themselves under the fronds of palm trees off to the flanks of the machine guns. The snipers were dressed in a jungle green uniform; some used individual camouflage nets while others hung coconuts all over their body. They were almost impossible to see until they moved or the fronds were shot away. . . . It is not uncommon for a soldier to lose a sniper’s nest in the few seconds it takes between putting down his field glasses and taking up his rifle.”

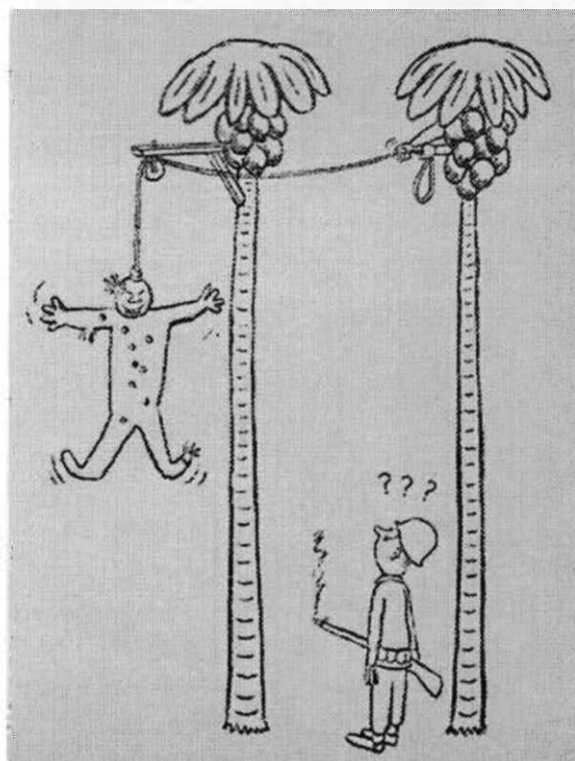
A Guadalcanal veteran told intelligence debriefers:

“I believe one reason the Japanese ordered their snipers to tie themselves in trees was to get us to waste our ammunition. When a sniper tied to a tree is killed, he does not fall. As other soldiers pass by later, they again spray the body with bullets. I cut down the body of one Jap[anese] who had been dead at least three days. I counted 78 bullet holes, 60 percent of which were made by .45 caliber weapons.”

On New Guinea, U.S. Army soldiers found that enemy snipers hung life-size dummies in adjacent trees to draw away return fire, with some that could drop to make it seem the sniper had been shot. Other snipers tossed firecrackers to divert attention from their real location. While in their treetop perches, Japanese snipers signaled each other by mimicking birdcalls—an unsettling practice because GIs could not distinguish



Japanese snipers frequently climbed palm trees and concealed themselves in the fronds. (Original art by Tami Anderson.)



This cartoon warned GIs that enemy snipers sometimes used dummies to draw away their fire.

The Makin Raid

Ten days after the 1st Marine Division landed on Guadalcanal, a thousand miles away U.S. Navy submarines landed 211 Marines on the Japanese-held Makin Atoll. Volunteers from the 2nd Raider Battalion, the Marines were tasked with attacking the enemy garrison and destroying its radio station and fuel stockpiles, which hopefully would complicate the enemy's focus on Guadalcanal.

Led by Lieutenant Colonel Evans Carlson, their ranks included the president's oldest son, Major James Roosevelt, who, like the other Raiders, soon found himself combating well-concealed snipers.

According to George W. Smith's book *Carlson's Raid*,

"Whenever a Raider tried to use a walkie-talkie he could expect to hear the pinging of bullets around him. When an officer or non-com raised his hand or head to give a command, he was shot at. . . . The officers soon learned to direct their troops by voice alone and kept their hands and heads down."

The Raider's intelligence officer, Captain Gerald Holtom, was among the early victims. "He was looking for me along this road when a sniper shot him," Lieutenant Colonel Carlson later wrote, "the bullet passing through his left chest and emerging behind his left shoulder. He lived only about ten seconds."



Posthumous Medal of Honor recipient Clyde Thomason, a Marine Raider who fought Japanese snipers on Makin Atoll.

Among those gallant few, Sergeant Clyde Thomason was one who boldly went after enemy snipers, and, at one point, "he dauntlessly walked up to a house which concealed an enemy Japanese sniper, forced in the door and shot the man before he could resist." Later, the Atlanta, Georgia, native was pointing out targets for other Raiders to engage when another enemy sniper spotted Thomason and killed him with a single shot. He was posthumously awarded the Medal of Honor, the first Marine enlisted man so honored in World War II. As for the sniper who killed him, another Raider, Corporal Ed Wygal, let loose on him with a Browning Automatic Rifle and, it was believed, avenged Thomason's death.

With so many snipers about, Lieutenant Colonel Carlson grew concerned about getting the president's son killed. "Time and again I had to tell him to get into a sump hole and stay there," Carlson later wrote the president, "so I could be assured that my communications would continue to function, because he insisted on sticking his neck out to see how things were going."

Carlson, a witness to earlier combat in China, reported, "The only improvement I found in the Japanese fighting technique over what I'd seen in China was the perfection of their sniping."

The raid succeeded but at a significant cost. Eighteen Raiders were killed and another 20 wounded, mostly by snipers firing from tall palm trees. Out of necessity the bodies were left behind and not recovered for six decades. Then on 17 August 2001—the 59th anniversary of the Makin Raid—Medal of Honor recipient Thomason's recovered remains were buried with full military honors at Arlington Cemetery, witnessed by an audience of Marine Raider veterans, some well into their late 80s.



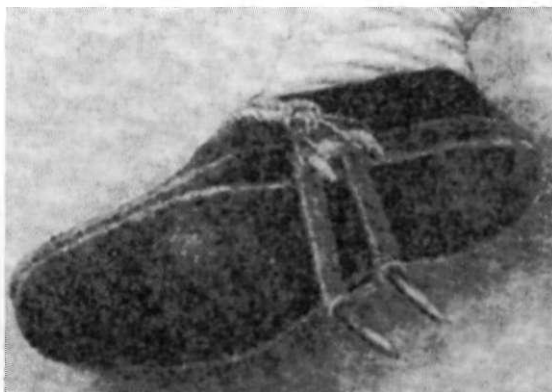
This Marine on Iwo Jima was shot in the back by an enemy sniper who purposely allowed the patrol to pass before firing.

between the real and the imitation. Thus, every chirp seemed a potential sniper.

The sniper's most basic tactic was to allow GIs to pass his concealed position and then, when the Japanese main position opened fire, shoot at the Americans from their rear.

By cleverly timing his fire so it was masked by other gunfire, the sniper could shoot man after man. "The sniper was only firing when there was a lot of shooting going on at the front line," remarked Private Chester Nycum of the 503rd Parachute Infantry Regiment, whose squad was thus engaged on New Guinea. "Although we pinpointed the tree he was hiding in, we could not see him even when we were directly under the tree."

Japanese snipers equally were masters of infiltration, waiting until dark to slip through or around U.S. positions and reoccupy ground thought secure and snipe again. To assist such stalking, some snipers wore "sniper shoes"—*tika-tabi*, literally, "socks for ground use"—which performed similarly to American Indian moccasins, their soft soles muffling their movement. Once behind American lines, some snipers cut phone lines and then lay in ambush for the wire repairmen, who were sure to arrive.



Japanese snipers wore special climbing spikes lashed to their feet.

Other snipers shouted catcalls in perfect English. On Makin Atoll, a Japanese sniper shouted in English, "Reveille, fellows! Get up! Reveille!" On New Guinea, after hiding two days near an Australian position and simply listening, "in a perfect Australian accent" a

Japanese sniper called, "Say, Bill, where are you? This is Alf." A 1943 report noted the result: "When Bill shouted in reply, a tropical bush suddenly arose and shot him dead."

It may seem a wartime motion picture cliché that Japanese snipers pleaded in English for help from medics or chaplains, only to shoot them, but such things actually happened. On the island of Munda in the Solomons, a 43rd Infantry Division chaplain, Father Neil Doyle, a native of Waterbury, Connecticut, could not resist such a plea. Father Doyle, another chaplain reported, was lured to his death by a sniper who cried, "I'm wounded! I want the padre!"

Arisaka Sniper Rifles and Scopes

Named for the arsenal commander who oversaw its design, Colonel Nariakira Arisaka, the Arisaka rifle was formally designated the Type 38 to honor the 38th year of Emperor Meiji's reign (1905), when it was adopted as

The Marauder's Master Sniper

Operating deep behind enemy lines in northern Burma and supplied only by air, Merrill's Marauders made life extremely hazardous for the Japanese occupation forces. Among this regiment of Army volunteers—the only U.S. infantry fighting on the Asian continent—Private Norman Janis proved an especially deadly rifle shot.

Janis, a chief of the Sioux Nation, had grown up in South Dakota, where a keen eye and sure shot were needed to put meat on the table. As a scout-sniper in the Marauder's Intelligence and Reconnaissance Platoon, Chief Janis soon established himself as "one of the crack shots of the regiment," when, for instance, his keen eyes spotted an enemy sniper in a treetop 300 yards away. With one shot Janis eliminated the sniper—his bullet was later found to have struck him in the heart. Then there was the time a litter party was crossing a river and the ever-alert Sioux spotted an enemy machine gun and fired one shot, and "the Japanese gunner fell across his weapon." On another occasion the Sioux sharpshooter picked off five enemy soldiers, one after the other, who had crept up and were firing from close range. Even more remarkably, he once fired eight rounds and killed eight enemy, according to the unit's history.

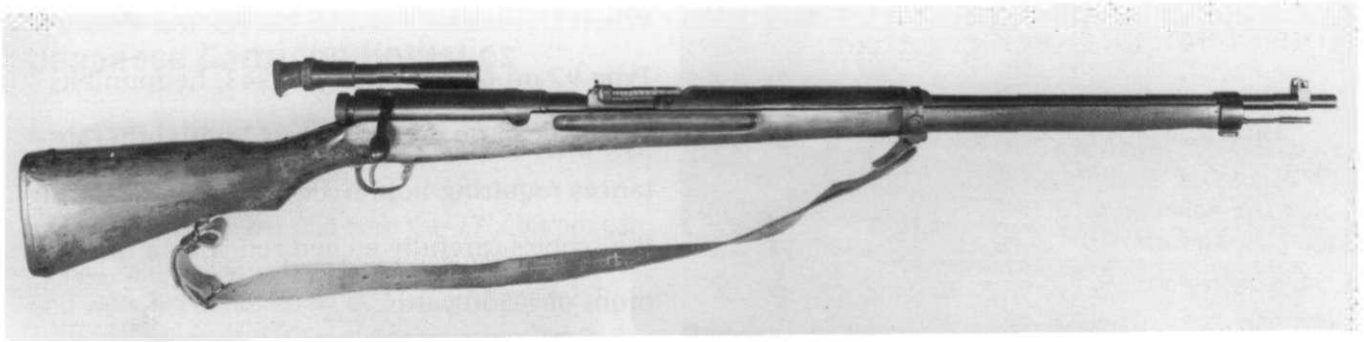
A half century after his great deeds, in 1996, Chief Janis, the Marauders' master sniper, traveled to Fort Benning, Georgia, where he was inducted into the Ranger Hall of Fame, being hailed for his "unassuming, quiet manner" and "his extraordinary feats of courage."



Private Norman Janis, the crack shot of Merrill's Marauders, with his favorite rifle, "Betsey."

Japan's standard infantry arm. A simplified Mauser action, the Arisaka bolt contained only six parts and could be fieldstripped in seconds. Chambered in 6.5 x 50mm (.264 caliber) with a five-round fixed magazine, this simple rifle proved one of the sturdiest bolt actions ever produced, judged stronger in postwar tests than the Mauser or Springfield. However, its 31 1/2-inch barrel and overall length of 50 1/4 inches made it a bit unwieldy for the Japanese soldier, who probably averaged 5 feet, 5 inches to 5 feet, 6 inches in height.

It was not until 1937 that a sniper version, the Type 97, was fielded, its designation reflecting the belief that the Japanese Empire was then 2,597 years old. This rifle sported a low-magnification 2.5x scope and a turned-down bolt handle, plus a wire monopod that folded under the forearm. With scope, it weighed just under 10 pounds. The Type 97 rifle was not known to be modified or



Japan's standard Type 97 sniper rifle, a bit unwieldy at 50 inches in length. (Courtesy of West Point Museum.)

"accurized," but when Lieutenant Colonel John George, a Merrill's Marauder's veteran, examined one, he found it

"much better fitted and finished than the ordinary Arisaka 38. The inletting of the stock was a closer fit and the firing mechanism and bolt were tighter. The trigger pull, while by no means up to American match standards, was smooth and broke, as I remember, at about five pounds."

The rifle's low-powered 6.5mm round proved an advantage in thick jungle, where, many GIs reported, it was difficult to locate its reduced muzzle blast or spot its tiny muzzle flash. However this same factor—being underpowered and thus less lethal—proved such a problem during fighting in China that the Arisaka rifle was updated and rechambered in 1939 for a more powerful 7.7 x 58mm cartridge. The new Type 99 rifle also had a chrome-plated bore and bolt face to better withstand corrosion and to reduce the effect of wear. The Type 99's sniper version was adopted in June 1942, with either the original 2.5x nonadjustable scope, or a new 4x externally adjustable optic.

Both Arisaka models had a curved-steel dust cover that moved with the bolt to keep dust from the receiver. It may have been a good idea, but any sniper worth his salt removed it, as this was notorious for "clinking" and compromising his location.

When it comes to performance, the best group I've discovered claims about 2 minutes of angle, which translates to 10-inch groups at 500 yards and, given the region's jungled terrain, offered more than enough range for most engagements.



The Japanese 2.5x nonadjustable rifle scope with case.



This Type 99 Sniper Rifle with an adjustable 4x scope is in the Fort Benning Infantry Museum collection.

When Lieutenant Colonel George test-fired a Type 97 on Guadalcanal in 1943, he found its scope “dead on at 300 meters,” with other distances requiring hold-over or hold-under using the scope’s carefully etched reticle to a maximum of 1,500 yards.

At the U.S. Army Infantry Museum at Fort Benning, Georgia, accompanied by curator Z. Frank Hanner, I examined a Type 99 sniper rifle’s externally adjustable 4x scope. The glass was good quality, although not coated, and its sheet-steel

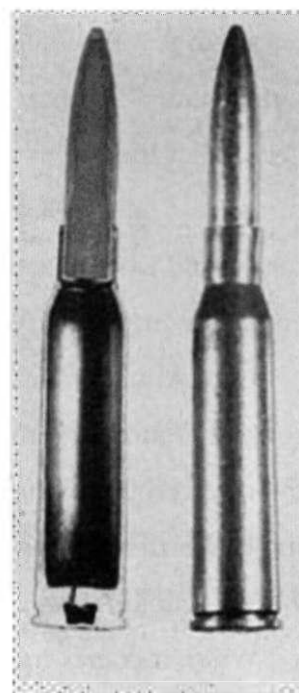
tube was protected from the elements by a shiny black porcelain enamel coating. Like the rifle it topped, the scope was well suited to medium- or close-range shooting.

Japanese Sniper Ammunition

The Imperial Japanese Army provided its snipers with no special ammunition, not even a higher grade of military ball ammo. The Type 97’s semi-rimless, 6.5 x 50mm round generated only 2,500 feet per second muzzle velocity for its 139-grain bullet because authorities did not want recoil to batter their small-statured soldiers. Thus, despite an excellent 0.5 ballistic coefficient—the best for any rifle projectile in the Asia-Pacific theater—it proved so ineffective in China that the search began for a more powerful round.

Contradictory evidence addresses the 6.5mm round’s lethality. According to a postwar U.S. Army study, *Wound Ballistics*, the 6.5mm

“had an explosive effect and tended to separate, leaving the entire jacket in the wound while the bullet went on through. . . . The rear section walls of the bullet jacket, which were filled with a lead core, were thinner than the forward walls. The sudden stoppage of the high-velocity bullet when it hit an object produced a tendency to burst the rear walls and cause an ‘explosion.’”



The Japanese 6.5mm slug was base heavy, sometimes “exploding” on impact.

Japanese Cartridge Ballistics

Imperial Japan's Type 97 sniper rifle was chambered for the 6.5 x 50mm round, while its newer Type 99 sniper rifle fired the 7.7 x 58mm cartridge. Both rifles were produced in great quantity and were encountered by U.S., Australian, and British forces throughout the Asian-Pacific campaign.

The 6.5mm, 139-grain round dated back to the late 1800s, and during fighting in China in the 1930s it was found to provide insufficient lethality. This was remedied, the Japanese army believed, by adopting the heavier, more powerful 7.7mm round with a 175-grain bullet. Here we'll examine these cartridges' ballistics compared to the American .30-06 and British/Australian .303 rounds. All data was calculated using Sierra's ballistic software, with the cartridges loaded to their respective military standards: the .30-06 (actual diameter .308) with a 150-grain bullet, a muzzle velocity of 2,700 feet per second, and a 0.4 ballistic coefficient; the .303 (actual .311) firing a 174-grain projectile at 2,440 feet per second and 0.37 ballistic coefficient; the Japanese 6.5mm (actual .264) with a 139-grain bullet at 2,500 feet per second and 0.5 ballistic coefficient; and the Japanese 7.7mm (actual .311) with a 175-grain projectile at 2,400 feet per second and 0.4 ballistic coefficient.

The basic yardstick for any bullet's potential lethality is its energy, compared here at 100 yards, expressed in foot-pounds.

FOOT-POUNDS OF ENERGY AT 100 YARDS

U.S. 30-06	British .303	Japanese 7.7mm	Japanese 6.5mm
2,422	2,214	2,140	1,540

Clearly, the 6.5mm yields dramatically less energy, indicating that this projectile will not penetrate barriers as deeply or produce wounds as serious as the other cartridges. There's simply no comparison to the American .30-06: the U.S. round generates 57 percent more energy than the Japanese 6.5mm. Note, however, that the .303 and 7.7mm produce very similar energy, reflecting how closely Japanese designers modeled their round after the British one. Compared to the .30-06, the 7.7mm is much closer to parity than the smaller round it replaced.

When it comes to trajectory—that is, how flat a projectile flies—it's apparent that the Japanese 6.5mm's superior ballistic coefficient was not much of an advantage due to its unimpressive velocity. The following chart shows data for bullet paths at 300, 500, and 800 yards, based on the rifles being zeroed at 100 yards. ➔



The Pacific theatre's sniper cartridges (left to right): Japanese 6.5mm (139 grain), Japanese 7.7mm (175 grain), British .303 (174 grain), and U.S. .30-06 (150 grain).

BULLET PATHS FOR 300, 500, AND 800 YARDS

	U.S. 30-06	British .303	Japanese 7.7mm	Japanese 6.5mm
300 Yards	-16.4"	-20.0"	-23.0"	-19.9"
500 Yards	-71.5"	-83.5"	-96.7"	-86.0"
800 Yards	-286.0"	-315.0"	-376.0"	-341.0"

For long-range shooting, the British and (especially) the American cartridges offered ballistic performance superior to either Japanese round, undoubtedly because the Japanese used "light loads"; i.e., less powder, which meant less recoil to their smaller-stature soldiers. Here's an approximate average of powder loads used in these cartridges:

AVERAGE MILITARY POWDER LOADS

U.S. 30-06	British .303	Japanese 7.7mm	Japanese 6.5mm
55 grains	42 grains	44 grains	35 grains

Had the Japanese loaded "hotter," they'd have seen a proportional ballistic improvement, with the potential for their streamlined 6.5mm projectile to outperform all the other rounds.

Snipers from "Down Under"

Australia had been at war since 1939 and, despite a population of only 7 million, had dispatched three divisions to fight alongside British troops in North Africa and the Mediterranean. When the Imperial Japanese Army invaded the nearby islands of New Guinea and Timor in early 1942—just 200 miles northeast and northwest of Australia—she had hardly more than one division left.

It was critical to delay and wear down the Japanese and prevent these islands from becoming springboards for invading Australia and to buy time for American ground forces to arrive. Among the small forces deployed to Timor and New Guinea were snipers outfitted with Australia's own Rifle No. 3 Mark 1 (T), based on the Pattern 1914 Enfield, .303 caliber, with an Aldis 3x rifle scope. This rifle had an excellent reputation for accuracy, capable of firing 1 1/4-inch groups at 100 yards.



Australian Private Jack Hall takes aim at a treetop Japanese sniper.

On Timor especially, the Aussie snipers (many of them former kangaroo hunters) proved highly effective against the Japanese. The Australian's Independent Companies, a special operations force similar to Commandos and Rangers, included nine snipers in each 238-man unit. One such sniper on Timor was

credited with shooting 47 enemy soldiers, although, he reported afterward, he counted just 25 since "in my game you can't count a 'roo unless you see him drop and know exactly where to skin him."

The greatest sniper kill came on 22 May 1942. Frustrated by the Australian's hit-and-run guerrilla attacks on Timor, the Japanese command deployed 12,000 troops to rout them, even bringing in a

RIFLE No. 3 MK.1⁺ (T), .303 IN. PATTERN 1914

complete with
SIGHT TELESCOPIC (AUST.) PATTERN 1918
and
BAYONET No.3 MK.1



Australia's World War II sniper rifle was based on the British Pattern 1914 Enfield and Aldis 3x scope.



Nearly invisible, an Australian sniper prepares to fire on Timor, 1943.

dynamic veteran of the Malayan campaign, a major renowned as the "Tiger of Singapore," to lead the hunt. That morning, on a trail near Remexio, the Japanese major was leading a patrol atop a white horse, his chest displaying a colorful array of medals, when he rode into an Australian ambush. While other soldiers killed 30 Japanese, one well-aimed sniper's shot took out the Tiger of Singapore.

On Timor, the hit-and-run operations continued until February 1943, when, their delay mission completed and Australia safely reinforced with American GIs, the Australians withdrew. By then they had killed an estimated 1,500 Japanese and tied down 10 times that many, at a loss of 40 Australian lives.

This may have been true, but during fighting on Guadalcanal, a U.S. intelligence report concluded, "Most of the wounds our forces received in the Solomons were not serious. Unless a vital spot is hit, the Japanese .25-caliber [6.5mm] weapons do not inflict bad wounds."

The heavier 7.7 x 58mm rimless cartridge, essentially a copy of the British .303 round, was adopted in 1939 for the updated Type 99 rifle. Not surprisingly, the 7.7mm round and its heavier 175-grain bullet yielded considerably more energy, with performance almost identical to the British cartridge (see "Japanese Cartridge Ballistics," page 479).

Late in the war, during the fighting on Iwo Jima, U.S. intelligence noted that some Japanese troops were firing 7.7mm "explosive incendiary bullets." However, unlike fighting on Europe's Eastern Front, where Russian and German snipers deliberately used such ammunition, intelligence analysts concluded that the Japanese, desperately low on ammo, had salvaged these cartridges from grounded fighter planes.

U.S. ARMY AND MARINE CORPS SNIPER TRAINING

In 1918, as quickly as World War I ended, both the U.S. Army and Marine Corps had terminated their sniper training and did little, if anything, to evolve sniper weapons, optics, or tactics during the interwar years. For the Marines, this view changed dramatically in the fall of 1942, after their first major offensive in the Solomon Islands, where "[enemy] snipers caused the Marines more trouble than any other single factor," according to an after-action report.

This inspired the creation of two Stateside Marine sniper schools, but even before that, in the heat of battle on Guadalcanal, the Marine Corps had set up a sniper course. Only a month into the fighting, in September 1942, the 1st Marine Division commander ordered Colonel William Whaling, an officer renowned for his shooting skill and courage, to conduct a scout-sniper school on Guadalcanal to instruct two Marines from each rifle company. Colonel Whaling's hastily trained graduates went directly from their classes into combat and helped turn the tide during the battle's darkest days.

More than a year before this, the USMC barracks at Quantico, Virginia, had held its first sniper training since World War I. This one-time June 1941 "Sniper-Observer-Scouts" class served "to demonstrate to the thirty-one officers and enlisted students the correct technique of the employment of snipers."

Following the Guadalcanal fighting, Marine sniper schools were founded on each coast, near Camp Pendleton, California, and Camp Lejeune, North Carolina. First Lieutenant Claude Harris, a former gun-

The Most Unusual Scout-Sniper Teams

In November 1942, while fighting was tapering off on Guadalcanal, the Marine Corps created the war's most unusual scout-sniper element. The USMC War Dog Training Program had dogs that carried messages and rescued injured personnel, but it also included scout dogs—sometimes called “silent scout dogs” because they silently alerted handlers—and these operated as teammates with Marine scout-snipers.

This scouting focus, according to the USMC History Division, dictated making dog handlers out of scout-snipers:

“The handlers were selected for their intelligence, character, and physical ability as well as previous training as scout-snipers without dogs. When such men were not available, they had to be trained as scout-snipers concurrently with the dog handling.”

Undergoing training together, the handlers and dogs learned how to track enemy soldiers, to locate hidden snipers or ambushers, and generally to warn of any enemy presence. Course graduates were deployed as War Dog Platoons, each containing 18 dogs and handlers.



A USMC scout-sniper handles a dog on Biak Island in search of hidden enemy soldiers.

One platoon accompanied the Second Marine Raider Regiment on Bougainville Island, where the regimental commander hailed their performance. For example, a Doberman, “Andy,” along with his scout-sniper handler, safely led a Marine company past several enemy positions. “He alerted [to] scattered sniper opposition,” a report notes, “and undoubtedly was the means of preventing loss of life.” More remarkably, another scout-sniper and his Doberman, “Jack,” keyed in on a tree near their unit just before dawn. At daylight they directed to the tree an automatic rifleman, who opened fire, killing a hidden Japanese sniper.

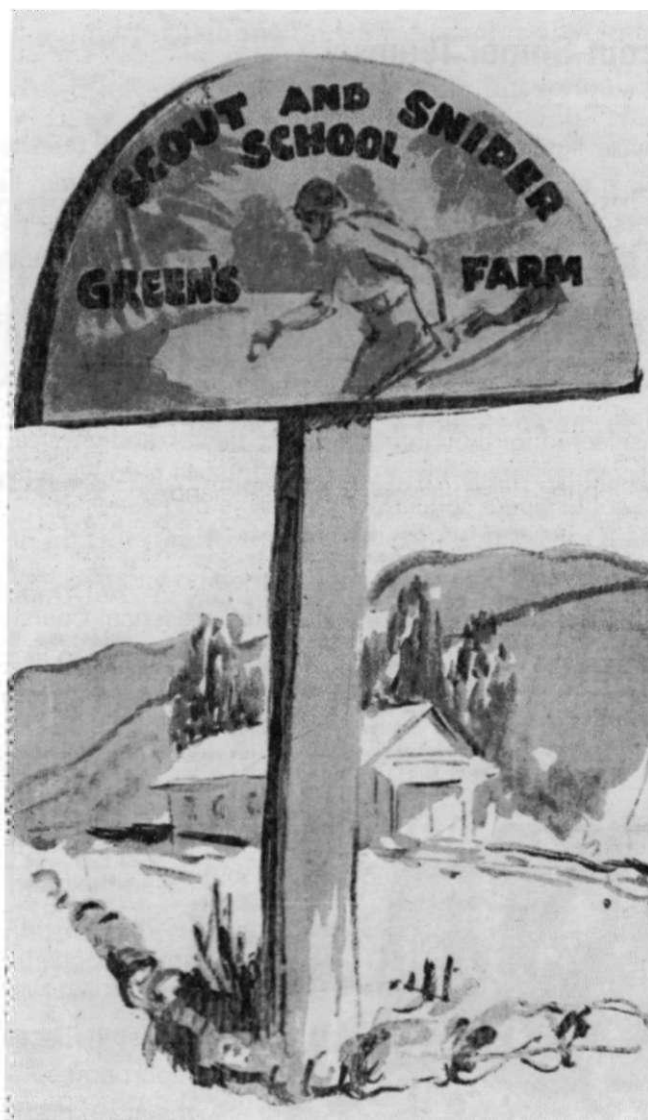
Eventually, three War Dog Platoons fought in the Pacific and, though little known, were present for the hottest actions, including Iwo Jima, Saipan, Guam, and Okinawa. Such duty was not without hazard: some 25 War Dogs were killed during the liberation of Guam alone.

nery sergeant veteran of Haiti and Nicaragua and a longtime competitive rifleman, headed the West Coast school, located in the hills north of San Diego at Green's Farm. In 1935 Harris had won the national rifle championship and had previously fired on seven championship Marine teams. His instructors included two Marine graduates of the British Commando School in Scotland.

The Green's Farm school could handle 15 students drawn from replacement battalions undergoing predeploy-

ment training at Camp Pendleton. A five-week course, the curriculum was heavily weighted toward marksmanship, although students also learned camouflage, range estimation, and scouting. Only the final week involved scoped rifle firing, shooting to a maximum of 500 yards.

On the East Coast, the Camp Lejeune Scout-Sniper School was in the capable hands of Captain



West Coast USMC sniper training was conducted at Green's Farm, near San Diego.

Walter Walsh, an FBI special agent who had returned to active duty. An accomplished shooter, Walsh was the first Marine ever to hold the Distinguished Rifle Badge, Distinguished Pistol Badge, and International Distinguished Badge. His first sniper class, only three weeks long, graduated on 24 April 1943. He must have demanded pretty high standards—of his 24 students, only 14 graduated, meaning a fallout rate of 42 percent.

Potentially, the U.S. Army could have fielded far more snipers in the Pacific theater—some 22

Army divisions fought there, considerably more forces than the Marine Corps' six divisions. However, like the European theater, the training and appointment of Army snipers was an individual commander's prerogative—some units had no snipers, others had snipers in name only, but some had well-trained snipers who were every bit as capable as their Marine counterparts.

“Command Emphasis”

During World War II, rifle marksmanship received command emphasis from the Marine Corps’ highest echelons, where the importance of accurate shooting was well understood. The commandant himself, General Thomas Holcomb, wore a Distinguished Rifleman’s Badge earned through years of high-level competition. In 1901, Second Lieutenant Holcomb had shot with the Marine Corps Rifle Team at the national championships at Sea Girt, New Jersey. A year later at the world rifle championships in Canada, he outshot every competitor to take first place and the gold medal. Then in 1903, his Palma Match long-range shooting team took on the best rifle teams from England, Canada, France, Australia, South Africa, and Norway to win first place. He put his shooting expertise to practical use a dozen years later when, as a lieutenant colonel, he trained and led a Marine battalion at the Battle of Belleau Wood, where the Germans were astonished at the Marines’ accurate shooting. “There’s no soldier harder to beat than one who’s got a gun he’s used to, understands and—at 1,000 yards or fifty—can shoot to kill,” General Holcomb once remarked. “He’s hard to beat because he’s sure of himself.”

Another high-ranking Marine Distinguished Rifleman was Major General Merritt Edson, who received the Medal of Honor for outfighting the Japanese on Guadalcanal’s “Bloody Ridge,” where his 800 Marine Raiders repulsed a mass attack by 2,500 Japanese. In 1921 he had shot on the Marine Corps Rifle Team that won the Camp Perry matches; then in 1935 and 1936 he captained the Marine Rifle and Pistol Teams, winning top honors both years. An inspiring leader and disciplined instructor, General Edson once said:

“Lots of people have wrong ideas about training men for combat shooting. They stress firepower above accuracy and they look for some shortcut by which they can teach men to be good combat shooters without teaching them the good old fundamentals of basic marksmanship. . . . Firepower is important but it is effective only in so far as it is accurate—and the more accurate it is, the less firepower is needed.”

Retiring in 1948, General Edson was elected vice president of the National Rifle Association and then—following in the footsteps of Civil War General Ambrose Burnside—became NRA president a year later, continuing his lifelong campaign to make America a nation of competent riflemen. When he died in 1951, General Edson held the NRA’s most senior full-time position as executive director.



Marine Corps Commandant General Thomas Holcomb and his prominently displayed Distinguished Rifleman’s Badge.



USMC Major General Merritt Edson, Medal of Honor recipient and postwar NRA president and executive director.



In northern Burma, two OSS officers harassed Japanese forces with Springfield sniper rifles.

Major James Lorio, operations officer of the 511th Parachute Infantry Regiment, scrounged Australian Enfield rifles with telescopic sights and trained “two expert marksmen from each platoon” to be snipers in New Guinea. For stalking exercises, his sniper students crept up on regimental positions and simulated engagements against key officers—which also educated leaders on just how vulnerable they were to Japanese snipers. Major Lorio’s “sniper group” became the regiment’s eyes and ears for the rest of the campaign.

Also in New Guinea, Colonel Jens A. Doe, commander of the 163rd Regimental Combat Team, established sniper-observer teams to counter enemy snipers that had been harassing his advance. A U.S. Army history observes:

"Using ladders made of telephone wire with stout wooden rungs, the [U.S.] troops in the trees made it their business to fire systematically on all trees thought to harbor [enemy] snipers, and were particularly active during such times as when the Japanese were firing. As soon as the posts in the trees were established, small counter sniping patrols of two or three men, covered by the troops in the trees, began to pick off the Japanese tree marksmen from the ground. . . . These measures got results quickly. The enemy marksmen were thinned out and forced back."

On Bougainville, an island adjacent to Guadalcanal, U.S. Army Lieutenant Raymond Ross trained his unit's "natural marksmen" as snipers, placing great emphasis on stalking, even running stalking exercises against each other. "The competition was keen and sometimes the men were face-to-face before seeing or hearing each other," he reported.

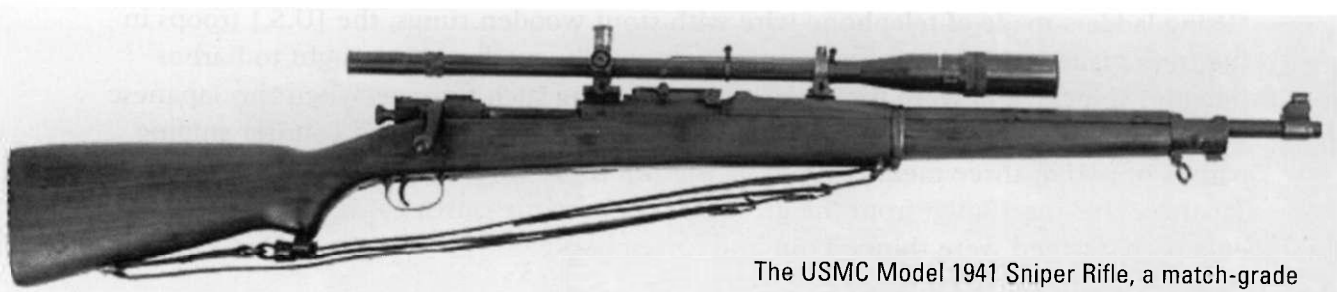
Marksmanship and countersniping was so thoroughly emphasized in the 96th Infantry Division, thanks to its enthusiastic assistant division commander, Brigadier General Claudius Easley, that its troops were nicknamed "The Deadeyes." General Easley, who'd shot a world record rifle score in 1924, captained the U.S. Army Rifle Team in the 1930s and led it to two consecutive victories at Camp Perry in 1938 and 1939.

U.S. Sniper Weapons and Ammunition

U.S. Marine snipers began World War II using the competition version of the Springfield .30-06 caliber bolt-action rifle, designated the M1903A1 National Match, which incorporated a star-gauged National Match barrel. Intended for competition shooting, these otherwise specially tuned rifles lacked scopes, so as a stopgap they were topped initially with World War I-era technology Lyman 5A scopes.

Meanwhile, the search was under way for a more suitable rifle scope. This effort, led by Rifle Team shooters, focused on the optics most familiar to them: target scopes. They settled on a then popular 8x target optic, designed and manufactured by John Unertl, who'd begun his career making German optics at the Spandau works during World War I. For target shooting, there may not have been a better scope anywhere; the Unertl's external knobs offered 1/4 minute of angle adjustments (1/4 inch at 100 yards), which, combined with 8x magnification, offered considerable precision.

The Unertl selection did not meet with uniform acclaim, however. Only a year earlier at Quantico Marine Barracks, Colonel Julian C. Smith (future commander of the 2nd Marine Division) did not even include the Unertl among his candidate sniperscopes, which, though less powerful, were uniformly more rugged: the 2 1/2x Lyman Alaskan, the 2 1/2x or 4x Noske, and the Weaver 2 3/4x Model 330 and 4x Model 440. But the war was moving too quickly for lengthy debates. In early



The USMC Model 1941 Sniper Rifle, a match-grade Springfield with a Unertl 8x target scope.

UNERTL TARGET SCOPES



To Shooter Friends, Unertl Optical Co. wishes to advise that for the duration of the National Emergency, they cannot furnish target scopes but hope that their friends will keep in contact by writing for Free Booklet.

412 Cemetery Lane J. UNERTL OPTICAL CO. Pittsburgh (9), Pa.

Unertl turned its production to military contracts, although its target scope was found "not satisfactory" for sniping.

1943, the Marines officially adopted the National Match Springfield rifle topped by a Unertl 8x scope as the USMC Model 1941 Sniper Rifle.

Then came criticisms from the field. The scope was *too long* (24 inches), *too powerful for close-range jungle shooting* (8x), and *too delicate* (with fine external adjustments easily degraded by the



Some Marine scout-snipers were armed with the Army's M1903A4 Springfield, with a Weaver 330C scope.

crud and rough handling of field operations). On 28 October 1943, a Marine Raider battalion on New Georgia announced that the "sniper's rifle had no value" for combat operations. Fortunately a staff officer at Marine Corps Headquarters intervened, his memo arguing to replace the scope but not to eliminate sniper rifles:

Why the Winchester Didn't Go to War

When the U.S. Marine Corps appointed a panel in 1941 to recommend "the most efficient sniper rifle available in America today," there were no constraints or limits on that selection. Headed by Captain George Van Orden of the Quantico Rifle Range Detachment, the group spent three months of that last summer before Pearl Harbor testing and considering an array of candidates.

Van Orden's resulting 72-page report, *Equipment for the American Sniper*, enthusiastically recommended the Winchester Model 70 bolt action in its target shooting configuration, with a wide, beavertail fore-end; a medium-weight, 24-inch barrel; a sporter stock with a high comb that suited a scope; and chambered in .30-06 caliber.

Here was a perfect choice. This Winchester rifle—technically Model G7004C—had been winning long-range matches for four years, ever since its introduction in 1937. Probably the finest factory-made bolt-action rifle in the world—and more accurate than the 1903 Springfield sniper rifle—it featured a Mauser-style claw extractor, target-type adjustable trigger, and a reliable blade-style ejector. And Winchester was ready to provide 1,000 rifles at only \$68.40 each.

Of course, it was turned down almost instantly—but what's interesting is the mindset of the rear-echelon civilian who quashed it. Just nine days after receiving Winchester's offer, M.C. Gregory at the USMC Depot in Philadelphia declared, "These rifles are not considered suitable for use as sniper rifles," but never once touched on the favorable features listed above. Citing no durability test, he announced the Model 70 "not sufficiently sturdy" and pointed out (incredibly) that its "parts are not interchangeable with M1903 and M1 rifle parts," while "replacement parts will be difficult to procure." His final objection, that it was "not fitted with sling swivels," was just plain wrong—the Model G7004C came with sling swivels. And anyone who has ever owned a pre-'64 Model 70 knows it is every bit as sturdy as a Springfield 1903.

The Marine Corps had almost made the great leap of placing tuned, highly accurate rifles in its snipers' hands—but for one civilian. Of great irony, 24 years after Gregory signed off on that memo, *that exact rifle*—a Winchester Model 70 target rifle chambered in 30.06—was in the hands of Staff Sergeant Carlos Hathcock in Vietnam. As he demonstrated in 18 months in combat, it proved perfectly sturdy.

Yet, the Winchester 70 did see combat service in the Pacific-Asian theater, as the privately owned sniper rifle carried to war by U.S. Army Lieutenant Colonel John George. A superb competitive shooter, Lieutenant Colonel George used it both on Guadalcanal and later as a member of the famed Merrill's Marauders in the jungles of Burma. After a while he stopped using it, he explained, because the terrain and foliage favored close-range shootouts; so, he switched to an M1 Carbine and a large-capacity magazine. But he, too, never had the slightest problem with its sturdiness.



Lieutenant Colonel John George's Winchester Model 70 with Lyman Alaskan scope.

"The Unertl 8x scope was evidently procured early in the war when it appeared, at that time, to answer the requirements. Because the Unertl scope was not satisfactory does not mean that all scope-fitted rifles are useless for Marine Corps operations. The 1st Division at Cape Gloucester was unable to use effectively scope-fitted rifles because of climate and terrain. The 2nd Division at Saipan used scope-fitted rifles very effectively."

Sniping would continue, but it was the death knell for the Unertl scope. On 11 February 1944, the 2nd Marine Division flat-out requested a different rifle scope, and just five days later, the commandant of the Marine Corps cancelled the contract with Unertl, electing to adopt the Army's Weaver 330C scope, along with complete M1903A4s. Thus, during World War II the Marine Corps fielded three different rifle scopes—the Lyman 5A, the Unertl 8x, and the Weaver 330C—and two rifles—the M1903A1 and 1903A4.

By contrast, except where other rifles were locally obtained, Army snipers in the Pacific theater were uniformly armed with 1903A4 sniper rifles, topped by Weaver 330C scopes, just like the Army snipers fighting in Europe.

For ammunition, USMC Captain George Van Orden had recommended civilian match-grade (also called "Palma") cartridges, but, like the Winchester Model 70 rifle he'd recommended (see "Why the Winchester Didn't Go to War," p. 489), it simply did not happen.

Marine and Army Sniper Organization

The Marine Corps did not field a standard sniper organization during most of World War II. Documents from the Corps' West Coast sniper school disclose that its graduates were organized as three-man teams: a sniper, armed with a scoped Springfield rifle; a spotter, armed with an M1 Garand; and a security man, armed with a Thompson submachine gun, who was also a replacement if either teammate became a casualty. Under this concept, one team was assigned to each Marine company undergoing overseas replacement training at nearby Camp Pendleton.

At almost the same time, in April 1943, the deployed 1st Marine Division was organizing a 43-man scout-sniper platoon in each regiment, plus a division-level scout-sniper detachment. And as of February 1943, Marine Raider battalions, counterparts to Army Rangers and British Commandos, had nine snipers per company and four in the battalion headquarters.

Then, in September 1943, the 4th Marine Division proposed one sniper for each of its line companies, along with three small scout-sniper platoons (one per regiment), for a total of 67 snipers in the



Many Marine snipers preferred the “duck hunter” camouflage uniform, shown here during the assault on Tarawa.

division. On 8 April 1944, the 5th Marine Division’s plan to expand its 20 snipers to 60—with three scout-sniper teams per battalion, plus more in a Division Reconnaissance Company—was disapproved by the Marine Corps.

With so many different proposals and concepts, finally the Marine Corps standardized by authorizing 108 snipers per division on 12 August 1945—six days after the atomic bomb fell on Hiroshima.

The Army, of course, had no standard sniper organization whatsoever, leaving it all up to local commanders, although, on paper, each infantry platoon should have had one M1903A4 sniper rifle.

SNIPING ON THE ISLANDS

Sniping and countersniping played a role throughout the Pacific theater’s island-hopping campaign, starting at Guadalcanal. Here, as on each invaded island, the objective was to control an airfield—in essence, an unsinkable aircraft carrier—and, through it, command the air over part of the vast Pacific. On Guadalcanal, a U.S. report said:

“[S]nipers caused the Marines more trouble than any other single factor. Sniping is tied up very closely with offensive infiltration attacks, and also with nearly all the defensive efforts of the Japanese.”

“Always we had had to pay a price for locating these Japanese [snipers],” wrote Army Lieutenant Colonel John George, “trading casualties while we listened and watched for little giveaway sounds and sights—the shaking of leaves from the muzzle-blast of a weapon, or the deceptive sounds of individual rifle shots in the cover.”

"We learned to draw a 'back azimuth' from the point of impact of a Jap[anese] sniper's bullet," explained USMC Master Sergeant Lou Diamond, "even when that point of impact was in the body of a comrade, to look at the position of the sniper who had fired it. Once he was located, that sniper would be a dead duck with a vengeance."

Especially brave GIs did their best to make "dead ducks" of enemy snipers. Out of frustration, USMC Platoon Sergeant H.W. Hooker purposely exposed himself to draw sniper fire so they'd give away their locations. Hooker led a charmed life, because he succeeded at this five times. USMC First Lieutenant George Mead Jr., "with courageous disregard for his own personal safety," went after one troublesome sniper, stalking him with a .45 pistol. He succeeded and was awarded the Navy Cross. Two Marine Raiders, Sergeant Wauss Teague and First Lieutenant Thomas Pollard, received Distinguished Service Crosses for taking on Japanese snipers, each credited with bagging at least four of them.

"The best countertactic is the special patrols that some officers have set up," wrote a war correspondent in *Fortune* magazine. "These patrols, relieved of frontline fighting to concentrate on snipers, are picked for their woodcraft and



On Bougainville Island, this GI is not intimidated by enemy snipers.



An Australian machine gunner cut down this tree with gunfire, which killed the enemy sniper who fell 60 feet to the ground. (Australian War Memorial.)

Recovering from a Sniper's Wound

In the sweltering jungle of Bougainville in the Solomon Islands, a Japanese sniper placed his crosshairs on a Marine's dirty, stubble-covered face. The sniper's finger squeezed, and the face fell back into the foliage.

The Marine he'd hit, a young lieutenant from Minnesota, did not die, though he was severely injured. The bullet had struck Orville Freeman's left jaw, smashing the bone and requiring eight months of repeated surgeries and therapy. He recovered, though the wound left a prominent scar, nerve damage, and a speech impediment.

Returning to Minnesota, the affable former Marine was befriended by the mayor of Minneapolis, who appointed him a special assistant



Former USMC Lieutenant Orville Freeman (right), his jaw seriously scarred by a sniper's bullet, at a baseball game with Hubert Humphrey, who later served as vice president of the United States under Lyndon Johnson.

for veterans affairs. Six years later, Orville Freeman was elected as Minnesota's 29th governor and reelected twice with an unblemished reputation for ability and integrity. Then he was off to Washington to serve nine years as Secretary of Agriculture under the Kennedy and Johnson administrations, a stunning example of a wounded combat veteran rising from a hospital bed to a full, productive life.

By a peculiar coincidence, however, Freeman was the *second* Minnesota governor to have overcome a wartime sniper's wound. The state's fifth governor, William R. Marshall, was

shot by a Confederate sharpshooter while serving with the 7th Minnesota Infantry Regiment. Now what are the odds of that?

marksmanship and then given special training." These tactics and lessons from the Solomon Islands would be applied through the rest of the Pacific campaign.

Sniping in the Gilbert Islands

After Guadalcanal, the next objective was Tarawa Atoll's largest isle, Betio, a 600-yard-wide wisp of sand, with barely enough land to accommodate its valuable runway. Just 291 acres—the size of a major shopping mall parking lot—the island was crammed with 4,800 Imperial

Japanese Marines in 500 bunkers, pillboxes, and strong points. Tarawa would be the first "hot" amphibious assault in USMC history, with 5,000 Marines—three battalions of the 2nd Marine Division—storming ashore in full daylight. Here at Tarawa, Marine scout-snipers would play their most critical role in the war, perhaps their greatest moment in Marine Corps history.

Splitting Betio's beaches was a lengthy, 500-yard pier that, intelligence believed, was held by Japanese snipers whose flanking fire would pepper the Marines during their final run-in to the

shore. That pier had to be seized. But instead of just seizing it, it occurred to Marine planners, why not have Marine scout-snipers seize it so their precision fire could cover the run-in to the invasion beaches?

Thus, the first element to attack Betio, minutes ahead of an avalanche of 5,000 storming Marines, would be one lone platoon, just 30 scout-snipers of the 2nd Marines, 2nd Marine Division, led by First Lieutenant William D. Hawkins. It was a tough assignment, Hawkins told a *Saturday Evening Post* reporter, but "he would put his platoon of men up against any company of soldiers on earth and guarantee to win."

A former enlisted man and qualified sniper, Hawkins, too, may have carried a sniper rifle that fateful morning of 20 November 1943 when his landing craft slammed into the Betio pier, rushing his scout-snipers onto it, and wresting control from the Japanese. As Hawkins' Medal of Honor citation reported:

"The first to disembark, 1st Lt. Hawkins unhesitatingly moved forward under heavy enemy fire at the end of the Betio pier, neutralizing emplacements in coverage of troops assaulting the main beach positions."



Beneath the smoldering ruins of Betio Island, the pier (bottom) takes shape, where Lieutenant Hawkins' scout-sniper platoon covered the Marine landing.

Lieutenant Heimberger and the Snipers

While fighting raged on Tarawa-Betio, dozens of badly wounded Marines lay stranded on a reef offshore, where they'd been hit during the initial assault. Some had been baking in the sun a full day by the time an enterprising U.S. Navy officer, Lieutenant Edward Heimberger, commandeered a landing craft and took it upon himself to go after the men.

Especially determined Japanese snipers, however, had exploited darkness to swim to two shattered hulls that had run aground offshore and opened fire on Lieutenant Heimberger and his crew, endangering the rescue. That didn't stop the gallant young officer, however. Supporting machine gun fire silenced the snipers long enough to carry the wounded Marines aboard; then they were ferried to a hospital ship. For his courage that day, Lieutenant Heimberger was awarded the Bronze Star for Valor.

Two decades later, Heimberger would be familiar to television audiences as the befuddled New York businessman trying to run a rural farm on the TV sitcom *Green Acres*. In all the sight gags and canned laughter, however, there was no hint that Edward Albert Heimberger had risked his very life, braved deadly sniper fire, to rescue more than 50 wounded Marines from that 291 acres of hell called Betio Island.



Edward Heimberger, better known as Eddie Albert, fought at Tarawa as a U.S. Navy lieutenant.

From the vantage point of the pier, his snipers—"spectacularly heroic," the Marine Corps called them—fired hundreds of yards up and down the beaches, picking off enemy targets, providing precision covering fire as Marine battalions swept past on their right and left to hit the hotly contested beaches. For Hawkins' shooters, firing amid this incredible melee, shooting as quickly as they could run their bolts, it was all they could do to exploit this target-rich environment.

But it was hardly over. Lieutenant Hawkins and his scout-snipers soon joined their comrades ashore and fought relentlessly for the next three days, trading shots with hidden snipers and riflemen, clearing out bunkers, blasting pillboxes, and dodging enemy fire. By the time fighting ceased, 2,300 Marines had been wounded and another 991 killed, among them the gallant Lieutenant Hawkins, who succumbed to his third wound. "To say that his conduct was worthy of the highest traditions of the Marine Corps," wrote journalist Robert Sherrod, "is like saying that the Empire State Building is moderately high."

"It's not often that you can credit a first lieutenant with winning a battle," said Colonel David



First Lieutenant William D. Hawkins led his scout-sniper platoon in seizing the Betio pier and then provided supporting sniper fire to 5,000 landing Marines.



At King's Wharf on Makin Atoll, a Japanese sniper hid inside this destroyed seaplane to engage U.S. troops.

Shoup, the commander at Betio and a future commandant, "but Hawkins came as near to it as any man could." To honor the fallen hero and sniper platoon leader, Betio's seized airstrip was named Hawkins Field.

The same day as the Tarawa landing, 100 miles north, the Army's 27th Infantry Division stormed Makin Island, where enemy snipers proved every bit as difficult as Guadalcanal. "Smoking out the snipers that were in the trees was the worst part of it," reported First Sergeant Pasquale J. Fusco of the Army's 165th Infantry Regiment, explaining:

"We could not spot them even with glasses and it made our advance very slow. When we moved forward it was as a skirmish line, with each man being covered as he rushed from cover to cover. That meant that each man spent a large part of his time on the ground. While at prone, we carefully studied the trees and the ground. If one of our men began to fire rapidly into a tree or ground location, we knew that he had spotted a sniper, and those who could see the tree took up the fire. When we saw an enemy, we fired occasional shots into trees that looked likely."

Rather than get similarly bogged down, First Sergeant Thomas E. Valentine's unit maintained its forward momentum. As he recalled,

"We learned that by taking careful cover and moving rapidly from one concealment to another we could minimize the sniper threat. Moreover, we knew that our reserves would get them if we did not. So we contented ourselves with firing at a tree when we thought a shot had come from it and we continued to move on. Our reserves would check on whether we had killed him or not."

Thus, the ability of Japanese snipers to delay U.S. forces was beginning to decline, and effective countertactics were being developed.

Sniping in the Marianas

With the Gilbert and Marshall Islands secured, the next stepping-stone, the Mariana Islands—especially Guam, Saipan, and Tinian—would put the Japanese home islands within range of B-29 bombers. Realizing this, Japanese resistance grew.

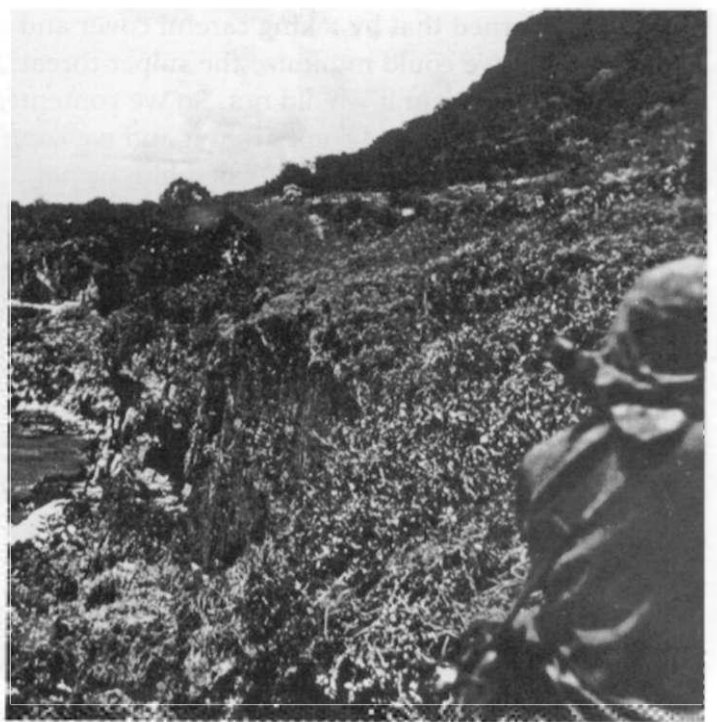
"The Jap[anese] snipers [on Saipan] were dug in so deeply and camouflaged so well that it was impossible to locate them before they fired," one Marine platoon leader remarked. "And then it was too late; you were right on top of them, and they had nailed another one of your men—or maybe you."

Corporal Martin Dyer, a squad leader with the 6th Marines Scout-Sniper Platoon, was called in after infantrymen had twice attempted to assault a well-camouflaged enemy position. Applying his sniper's skills, Dyer figured out where the Japanese defenders were hidden and then led a short-range assault that burst into the enemy position despite heavy fire. Mortally wounded as his men overran the strong point, Corporal Dyer was posthumously awarded the Navy Cross.

If there was any doubt about the nature of enemy snipers on Saipan, clear proof was witnessed by *Time* magazine correspondent Robert Sherrod. From his cave on high ground, a Japanese sniper fired with great accuracy, shooting three Marines up to 700 yards away. Then Sherrod noticed Japanese civilians—a father, mother, and three children—on rocks overlooking the sea, ready to drown themselves, but hesitating to jump. Sherrod could not believe his eyes:

"The Jap[anese] sniper took aim. He drilled the [Japanese] man from behind, dropping him into the sea. The second bullet hit the woman. She dragged herself about 30 feet along the rocks. Then she floated out in a stain of blood. The sniper would have shot the children, but a Japanese woman ran across and carried them out of range. The sniper walked defiantly out of his cave, and crumpled under a hundred marine bullets."

On nearby Guam, Japanese snipers—growing more fatalistic and more daring as defeat loomed



Top left: Going ashore at Saipan, a U.S. Marine (center) falls to a sniper's bullet.

Top right: A U.S. Army sniper prepares to engage a target on Saipan.

Above: Colonel Douglas McNair (left) on a Guam landing beach with 77th Division Commanding Officer Major General Andrew Bruce. Soon afterward, a sniper killed McNair.

Right: On Guam, a .45 automatic in his hand, a Marine creeps up stairs after a hidden enemy sniper.





Japanese snipers lie dead in this crater, where they'd fled during a running gunfight. The corpse on the left had 27 bullet holes.

before them—passed up many lower-ranking Americans and then readily traded their lives to kill senior officers. Three of the four highest-ranking officers to die on Guam were slain by snipers, including Colonel Douglas C. McNair, the 77th Infantry Division chief of staff; Lieutenant Colonel Samuel Puller, executive officer of the 4th Marine Regiment; and Lieutenant Colonel Hector de Zayas, commanding the 2nd Battalion, 3rd Marines.

On Pelilu, the highest-ranking Marine killed in action, Colonel Joseph F. Hankins, died in a sniper duel. The senior 1st Marine Division staff officer learned a sniper had been shooting at vehicles along a stretch of road nicknamed “Dead Man’s Curve.” Grabbing a rifle and binoculars, the former Marine Corps Rifle Team member announced that he “was going to do a little countersniping.” When he arrived on the scene, even before the duel could begin, one well-placed shot cut down Colonel Hankins, killing him instantly.

Liberating the Philippines

Advancing parallel to the Marianas campaign, U.S. forces landed in the Philippines and found the snipers there equally resolute and deadly. “The officers up here are getting knocked off faster than they can be replaced,” a letter writer on Luzon warned the Pacific Command’s Intelligence



Brigadier General James Dalton II confers with General of the Armies Douglas MacArthur on Luzon. Dalton, commanding the 25th Infantry Division, was killed by a sniper.



Private Lloyd McCarter, awarded the Medal of Honor, was credited with killing more than 30 enemy, including six snipers. (Courtesy of Homeofheroes.com)

Bulletin. "The Jap[anese] [have] a knack for getting the leader. He's zeroed on as soon as the patrol is spotted," he explained, citing officers wearing bright insignia and too readily gesturing or standing beside radio operators.

It was especially hazardous to operate a bulldozer, too. "Japanese snipers picked off the dozer operators with such disheartening frequency," one report noted, "that dozers and graders had to be armor-plated."

The worst foe for Japanese snipers on Corregidor Island had to be Private Lloyd G. McCarter, a paratrooper with the 503rd Parachute Infantry Regiment. Descending on a heavily defended fortress in Manila Bay, the crack shot personally accounted for six enemy snipers and then single-handedly repulsed a massive attack that wounded all his comrades. Badly wounded, the 28-year-old paratrooper refused medical treatment, after having killed "more than 30 of the enemy." The Tacoma, Washington, native survived to receive the Medal of Honor.

It was here in the Philippines that a Japanese sniper slew the Pacific War's highest-ranking victim of sniper fire, the commander of the Army's 25th Infantry Division. Brigadier General James L. Dalton II, 35, one of the Army's youngest generals, was shot dead on 16 May 1945 with a single bullet at Balete Pass in northern Luzon. In tribute to him it was renamed "Dalton Pass," a designation that continues to this day.

THE FINAL BATTLES

If anything, sniping grew worse on Iwo Jima and Okinawa, reflecting the growing desperation as U.S. forces neared Japan's home islands. One resolute sniper, barricaded in a cave, repulsed multiple attempts to destroy his position on Okinawa. "He got 17 of us before we got him," reported Marine Sergeant Mike Cwian of Chicago.

Japanese tactics grew more suicidal. The "octopus pot" defense put two snipers and a machine gun in a concealed position, supported by four riflemen as "close quarters counter-attackers" who suicidally assaulted when U.S. troops were pinned down. This tactic was meant to inflict maximum casualties, but its inflexibility increased Japanese losses as well.

With more than 38,000 U.S. casualties on Okinawa and another 25,000 Americans killed or wounded on Iwo Jima, untold numbers fell to snipers' shots, including the following:

- Marine Private Claude Fuzzell of Oklahoma City
- Private First Class Louis Charlo, the grandson of a Nez Perce Indian chief, one of the six men who raised the first American flag on Mount Suribachi
- Navy medic Jack Williams, a posthumous Medal of Honor recipient who shielded the wounded with his own body until a sniper killed him
- Marine Captain James McDermott, awarded the Navy Cross on Iwo Jima
- Marine Sergeant Jesse Murphree, another Navy Cross recipient slain by a Japanese sniper
- Lieutenant Colonel Horatio Woodhouse Jr., commanding the 2nd Battalion, 22nd Marines, cut down by a sniper on Okinawa

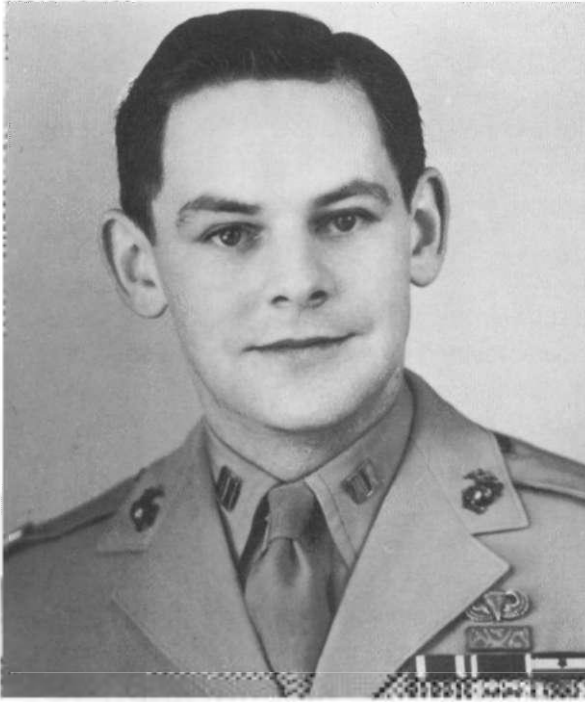
Others survived sniper wounds, including:

- USMC Major Lew Treleaven, an artillery forward observer, turned slightly as a sniper's bullet glanced off his chest and through his arm.
- Captain Robert Dunlap, awarded the Medal of Honor on Iwo Jima for boldly going after enemy caves, took a serious sniper wound that ended his military career.
- Captain Julian Dusenbury, a 1942 Clemson graduate, had his spinal cord snapped by a sniper's bullet and would spend the rest of his life in a wheelchair.

On 23 April 1945, while such fighting raged on Okinawa, in faraway Washington at Headquarters, U.S. Marine Corps, staff officers were looking into the future, informing the director of USMC logistics:

"The rifles and sighting equipment listed [1903 Springfield sniper rifle] are no longer used by the Marine Corps. A modified M1 sniper rifle is available in the *event* [emphasis added] that a requirement for this type of weapon is found to exist. . . . The sniper rifle is not considered to be a necessary weapon for any phase of Marine Corps training at present."

Atomic bombs soon fell on Japan, and the world was at peace again. And, again, just as at the close of World War I, the U.S. Marine Corps eliminated its sniper training program; the U.S. Army could not follow suit because it never actually had a sniper training program. All the precious lessons learned, the innovations bought at a terrible price in blood, were for naught. It would all have to be relearned in just five short years.



Above: USMC Captain Robert Dunlap earned the Medal of Honor on Iwo Jima but was severely wounded by a sniper's bullet.



Top right: Advancing through smashed trees on Okinawa, one Marine dodges sniper fire while another draws a bead on the gunman's position.



Right: A pair of USMC snipers successfully engage a Japanese soldier at 1,000 yards on Okinawa, 1945. This was witnessed by photographer Norris McElroy.

Below: His bayonet forever fixed, a Marine lies dead on Iwo Jima's black sand beach, killed by a Japanese sniper.



Piercing the Darkness

Nazi Germany and the United States crossed a major technological threshold in the final months of World War II, when both countries fielded infrared (IR) night vision devices. In concept, using an IR night sight was similar to “shining” for deer—a rifle scope was aimed into a narrow area illuminated by a beam of light—except this spotlight and scope used nonvisible IR light.

Germany’s device, the ZG 1229 Infrared Night Sight, called the *Vampir*, was mounted on a cutting-edge MP44 assault rifle with a high-capacity magazine. Illumination was provided by a 35-watt spotlight, powered by a backpack battery weighing 30 pounds. Aiming through his 1.5x IR scope, a German shooter in total darkness could hit targets to a range of about 70 meters. The *Vampir* had just gone into production as Allied troops overran the Reich, with only 310 units completed and no evidence that any were used in combat.

This was not the case for the U.S. infrared device, invented by Vladimir Zworykin, the same RCA labs genius who fathered television. Zworykin’s T-120 IR Sniperscope was mounted on a modified M1 Carbine—designated the T-3—and employed an ordinary 6-volt, 30-watt vehicle spotlight outfitted with a dyed cellophane IR filter to convert its visible beam into IR light. The spotlight hung below the forearm, controlled by a switch on a forward pistol grip, while muzzle flash was reduced by a special flash suppressor. With its backpack power supply, the American device weighed 27 pounds and offered a maximum range similar to the German device, about 65 yards, according to Marine Corps tests.

RCA and some period news accounts claimed that Zworykin’s revolutionary sighting system inflicted 30 percent of the enemy casualties on Okinawa, where it was first used in combat. This would seem quite an exaggeration, for at most a few hundred devices were present—unless it’s understood *how* they were used. On Okinawa, the desperate Japanese army felt its world crashing down around itself and launched many suicidal banzai charges at night to try and overrun U.S. positions, which unwittingly played into the new American capability.

A Japanese-American nisei soldier, Takejiro Higa, fought on Okinawa and witnessed the deadliness of his unit’s IR “snoopy scopes” when wisely exploited:

“They set up this guy with the [IR] snoopy scope every so many yards and then cover him. They have machine guns, yeah. So when the enemy penetration comes through, this snoopy scope operator shoots a tracer bullet. And then crossfire, yeah. So at this point the machine guns open up and slaughters all the guys coming through. So in fact . . . they welcomed the [banzai] suicide charge. That way they can slaughter more Japanese than individually.”



A British soldier examines a captured German ZG 1229 *Vampir* infrared night vision system.



Allied officers examine a U.S. T-120 infrared sniperscope on a T-3 carbine. Note the special flash hider and IR spotlight below the forearm.

The downside of an IR device was that its otherwise invisible beam could be detected by enemy forces equipped with similar devices, making it extremely hazardous to employ it against a technologically advanced foe. This issue would drive the next generation of night vision devices.

"They Got Ernie"

America's most popular war correspondent of World War II had to be Ernie Pyle. Writing in a folksy, personal style, he seldom rubbed elbows with generals or admirals, preferring the mud and grime and hazards of frontline soldiers and Marines. They were the grist of his reporting. "He was known for getting the names and addresses of GIs he'd meet and writing to their families back home," recalled a Marine veteran.



Famed war correspondent Ernie Pyle passes out cigarettes to GIs.

When European fighting tapered off in early 1945, the Pulitzer Prize-winning journalist shipped off to the Pacific, accompanying frontline troops during the attack on Okinawa. On 18 April 1945, Pyle and a mixed group of Marines and soldiers landed on the nearby island of Ie Shima. Marine Sergeant Paul Miller, an eyewitness, saw a Japanese "trap-door" sniper pop open a camouflaged lid and fire at Pyle, instantly killing him with a shot to the head. Miller thought the sniper had singled out Pyle because the correspondent's attire did not match the GIs' clothes and mistook him for a high-ranking officer. "In a brief second the sniper was blown to bits," Miller reports, "but all too late for our good friend, Ernie Pyle."

President Truman personally announced Pyle's death to a nation that felt his loss, with GIs passing the word mouth to mouth, "They got Ernie." The beloved journalist was buried with honors at Hawaii's Punchbowl Cemetery.

PART

5

THE ASIAN WARS



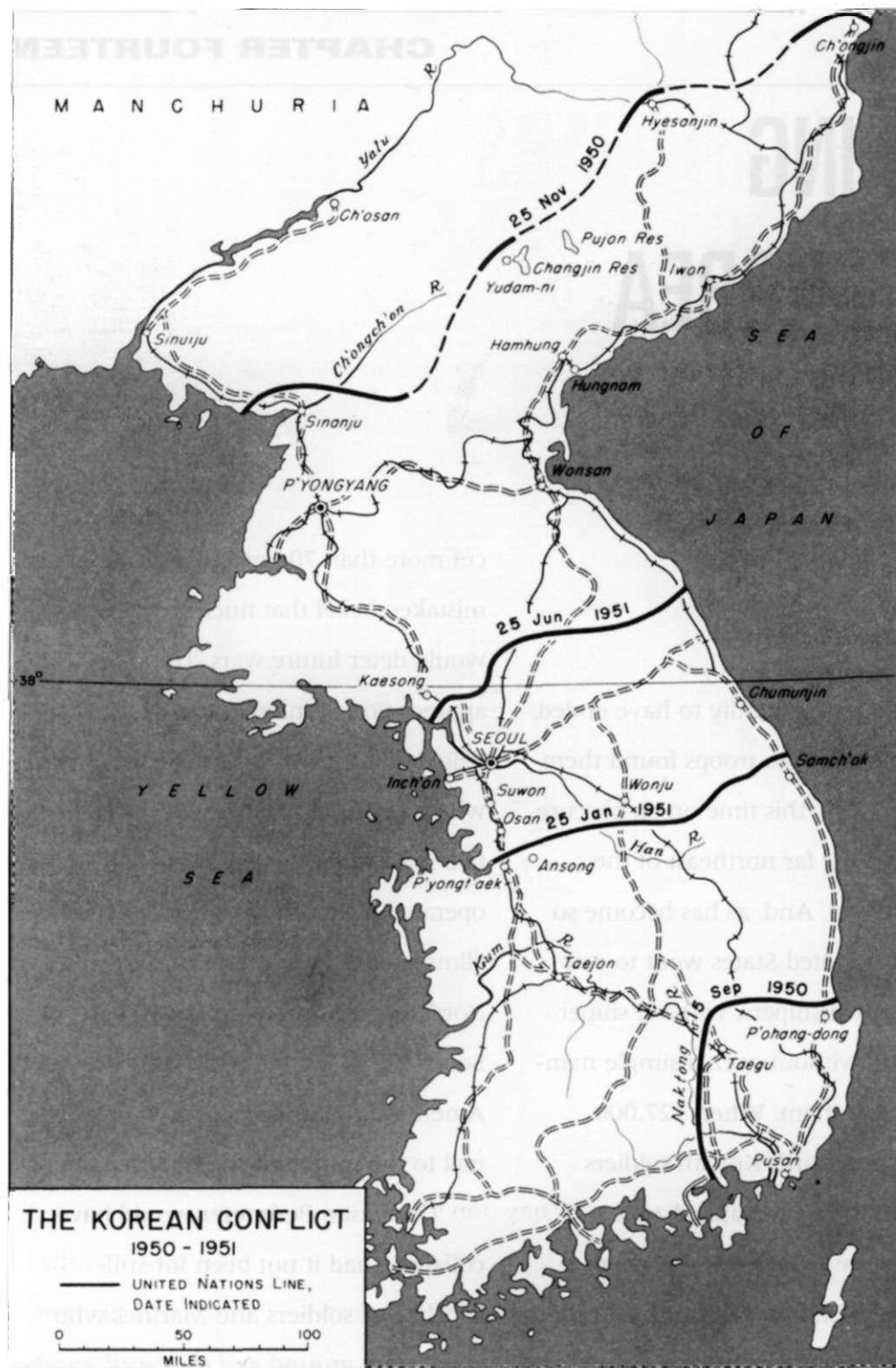
SNIPING IN KOREA

World War II seemed hardly to have ended, and, again, American troops found themselves in combat, this time on an obscure peninsula in the far northeast of the Asian mainland. And, as has become so familiar, the United States went to war without trained snipers, without sniper schools, and without even a simple manual to instruct them. When 127,000 well-equipped North Korean soldiers burst across the demilitarized zone (DMZ) in June 1950, opposing them were but 500 U.S. advisers and a South Korean military that was little more than a national police force.

With Japan's surrender and the new atomic era, U.S. ground forces had been

cut more than 70 percent, reflecting the mistaken belief that nuclear weapons would deter future wars. The U.S. Army's appreciation of infantry and well-delivered rifle fire had reached its nadir when, in a cost-saving move, its competitive marksmanship program—which had operated continuously since 1881—was eliminated. By early August 1950 the North Koreans had overrun 90 percent of South Korea, with three hastily deployed American divisions holding on by a toenail to the southeast coast at Pusan.

The Pusan Perimeter would have collapsed had it not been for stiff-backed soldiers and Marines who stood their ground and shot well, marksmen such as Sergeant First Class Arthur C. Dudley of the 24th Infantry Division. On 2–7 August 1950, desperately



Phenomenal shooting helped save the day on the Pusan Perimeter (lower right), but most sniping occurred when lines stabilized north of Seoul.

defending the Pusan Perimeter, Sergeant First Class Dudley's "unerring accuracy with the M1 rifle, often at unbelievable ranges, soon became the pride of the organization." Over five days this superb rifleman shot "over 50 enemy riflemen and machine gunners," according to the citation accompanying his well-deserved Distinguished Service Cross. Not far from Dudley, Private First Class Clovis Taylor of the 2nd Infantry Division shot with equal distinction. Over an eight-day period, he personally accounted for 25 North Koreans with his M1 rifle, not to mention another 67 enemy killed by his machine gun section. Taylor, too, was awarded the Distinguished Service Cross.



A 25th Infantry Division soldier, wounded by an enemy sniper, is aided by his buddies.

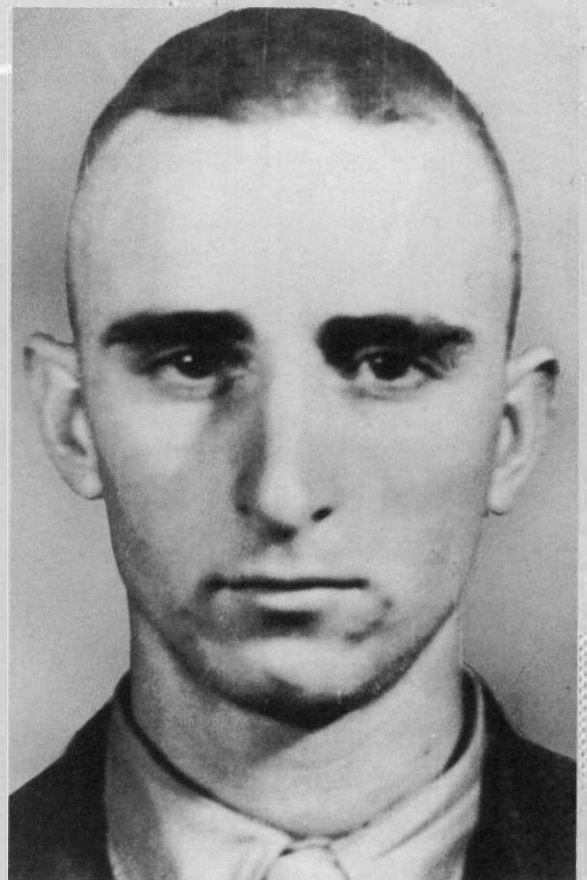
THE STATE OF AMERICAN SNIPING

The unfortunate truth, however, was that not many GIs were shooting well. Colonel John Michaelis, a combat commander in Korea, reported that his soldiers “have all the guts in the world and I can count on them to fight. But they can’t shoot. They don’t know their weapons.” The very month that the war erupted, the Army had cut rifle marksmanship instruction to 60 hours over the 13 weeks of basic training. A Marine recruit, by contrast, devoted 145 hours—38 percent of his training time—to weapons instruction. Yet when it came to sniper training, the Marine Corps proved as deficient as the Army—there simply were no sniper courses.

In a confidential memo prepared in late 1950, respected historian and U.S. Army Brigadier General S.L.A. Marshall, reported from Korea:

A Scout-Sniper Medal of Honor?

Private First Class Whitt L. Moreland apparently was a USMC scout-sniper and functioning in that role when he displayed great courage "above and beyond the call of duty" on 29 May 1951. Although his posthumous Medal of Honor citation doesn't use the term "sniper," Moreland is called "an intelligence scout attached" to a unit assaulting a Chinese-occupied hilltop, which is exactly how scout-snipers were employed. Further, the citation notes that he "delivered accurate rifle fire on the hostile emplacement and thereby aided materially in seizing the objective," but it never specifies the type of rifle he used. It is well documented that Moreland's unit, the 5th Marine Regiment, included snipers and ran its own sniper school, all but cinching the likelihood that the Waco, Texas, native was a scout-sniper. Moreland and his fellow Marines had seized the hilltop when a barrage of grenades fell among them. Moreland kicked or tossed away several live grenades, then stumbled before he could reach another, and, to protect his endangered comrades, "covered the missile with his body and absorbed the full blast of the explosion." Private Moreland, the only apparent Korean War scout-sniper to earn the Medal of Honor, was buried with full military honors at the Whittington Cemetery in Mount Ida, Arkansas.



Private First Class Moreland likely was a scout-sniper when he earned his posthumous Medal of Honor.

"There is minimal use of sniper tactics among American forces. Leaders are in general agreement that the situation would often lend itself to exploitation by individual sharpshooters working stealthily into the forward ground, taking independent cover and there awaiting any target of opportunity. The enemy occasionally employs such tactics. It is never systematically done by our side, and such actual sniper tactics as employed are usually an improvisation of the moment by one or two individuals."

It was not much different for the Marine Corps, with a memorandum from Korea noting that "sniper rifles issued to a Marine Division are not employed as intended and in many cases end up in the hands of officers and high ranking noncommissioned officers who have little or no opportunity to use the rifle gainfully as intended."

In October 1951, the U.S. Army surveyed 43 officers and NCOs freshly returned from Korea: 41 had personal knowledge of the enemy use of snipers; enemy snipers were judged "effective" by 32 of

them; only 15 had witnessed the American employment of snipers, and of them “two stated that there was only one sniper’s rifle per company and that men designated to use them were not trained snipers but were selected because they were excellent shots.” In most cases, sniping was accomplished with an ordinary M1 rifle in the hands of a superb marksman. Had well-trained snipers been available, 38 of the 43 believed they would have been used effectively.

NORTH KOREAN AND CHINESE SNIPERS

The standard Communist sniper rifle in Korea was the familiar Russian Mosin-Nagant with PU scope, which for the first time pitted the 7.62 x 54mm cartridge against the American .30-06. Although we previously addressed the Mosin-Nagant in Chapter 12, the sidebar on pages 516–517 (“Sniper Cartridges of Korea and Vietnam”) ballistically compares its round to the U.S. .30-06 and 7.62x51mm NATO cartridge.

Few Communist snipers in Korea were polished competitive marksmen or extensively trained, and it’s unclear whether formal schools existed then in China or North Korea. However, the scoped Mosin-Nagants required a minimum of operator/shooter training, which may have been instructed by Russian World War II sniper veterans, of whom there was a plentiful supply in 1950–53.



A Communist Chinese sniper aims toward U.S. lines in Korea.

U.S. intelligence initially was confused because North Korea labeled whole battalions as “sniper” units, but then it was learned the North Koreans used this term to identify reconnaissance and diversionary forces specializing in infiltration and night operations. To this day, Pyongyang still calls such forces “snipers.”

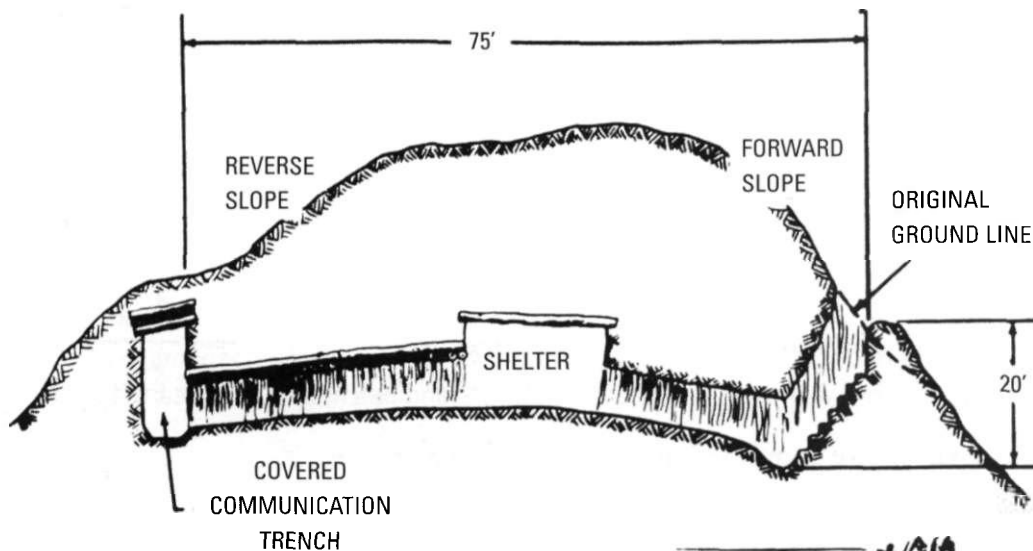
Real snipers appeared not to be two-man teams as found in Russia or the West, but lone shooters integrated with platoons and companies whose fire supported and complemented the infantrymen around them. When they were encountered, Communist snipers seemed to operate singly. As the war evolved a basic pattern emerged, with the



Captured near the Pusan Perimeter, this heavily camouflaged North Korean was likely an enemy sniper. (Photo courtesy of Joseph Rogers.)



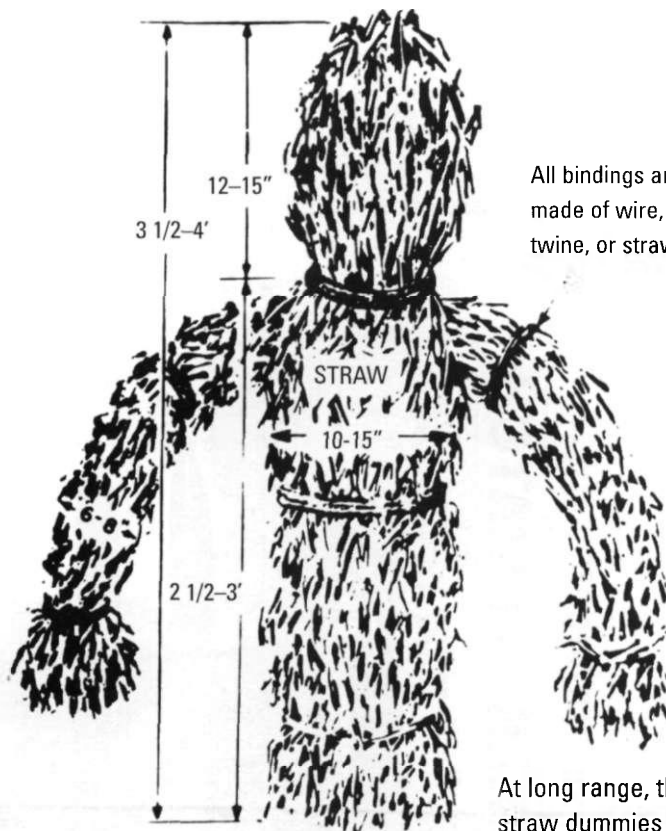
Enemy snipers weren't the only ones to use dummies to draw fire.



Tunneling completely through a ridgeline, Chinese snipers were all but immune from artillery and bombing.

enemy sniping (and mortaring) in daylight and launching large-scale infantry attacks in darkness, undoubtedly reflecting the U.N. forces' air superiority.

When fighting stabilized along the 38th parallel and both sides dug in atop hills and ridgelines, Chinese snipers displayed great subtlety (recall that Sun Tzu's *Art of War* reflects a Chinese perspective). Their peasant handicraft and readiness to spend untold hours digging yielded fighting positions that were masterpieces of earth movement, with individual



All bindings are made of wire, rope, twine, or straw.

At long range, these Chinese straw dummies effectively drew or diverted Allied fire.

snipers tunneling completely through hilltops, allowing the defense of both the forward and reverse slopes, along with effective overhead protection from artillery. Allied barrages brought great smoke and fury, but afterward enemy snipers reemerged, ready to shoot. The Chinese also cleverly fashioned man-sized straw dummies to draw Allied fire (which the enemy sniper could return) and to populate simulated foxholes and trenches that might divert Allied countersniper fire.

Sniper Cartridges of Korea and Vietnam

The Asian wars were the first in which U.S. snipers employed match-grade ammunition to any real extent and the first time that U.S. forces faced an enemy armed with Russian 7.62 x 54mm sniper rifles.

What is match-grade ammo? Developed for competitive shooting, these higher-grade cartridges offer tighter tolerances, closer uniformity, and more rigid quality control to achieve the most consistent results. This means that, for example, bullet dimensions and weight must be consistent, the brass is of a uniform and precise length, and powder is tested for a consistent burning rate. As well, all the components in a given lot of ammunition must come from their own respective single lots and batches so every cartridge in that lot is as identical as possible.

American snipers firing M1Cs and Ds in Korea used M72, .30-06 Match, nicknamed "white box" due to the color of its 20-round box; later snipers in Vietnam who fired Remington Model 700s or XM-21s used 7.62 x 51mm M118 Special Ball, called "brown box" because of its packaging. Interestingly, both these cartridges employed an identical .30-caliber, 173-grain ball projectile measuring 1.29 inches long. According to official Army standards, both loads were required to achieve "3.5-inch mean radius maximum average at 600 yards," a convoluted way of saying that more than half the bullets had to group within 3.5 inches at that distance. Due to its greater case capacity and resulting higher muzzle velocity, the .30-06 slightly outperforms



U.S. snipers fired match-grade ammo in .30-06 and 7.62mm NATO, both having a 173-grain bullet. Communist snipers fired the 7.62 x 54mm (right).

the 7.62mm NATO round; my rule of thumb is 10 percent, meaning the 7.62mm NATO round produces 10 percent less muzzle velocity and energy, and the .30-06 flies 10 percent flatter.

How well do these rounds stack up ballistically against the Communist 7.62 x 54mm? Here's the comparative data from my Sierra Ballistic software, when loaded to their respective military standards: the Russian 7.62 x 54mm cartridge (actual .311 caliber) with a 148-grain bullet at a muzzle velocity of 2,738 feet per second and a 0.360 ballistic coefficient; the U.S. M72, .30-06 Match round (actual .30 caliber), with a 173-grain boattail bullet at a muzzle velocity of 2,700 feet per second and a 0.42 ballistic coefficient; and the U.S. M-118 Special Ball (actual .30 caliber), with a 173-grain boattail bullet at a muzzle velocity of 2,700 feet per second and a 0.42 ballistic coefficient.

The calculations represent targets at 500 and 1,000 yards, assuming a 100-yard zero, with the U.S. scopes set 1 1/2 inches above the bore, and a Russian PU scope mounted 2 inches above the Mosin-Nagant's bore:

	500 YARDS			1,000 YARDS		
	Velocity (in fps)	Energy (in ft. lbs.)	Bullet Path (in inches)	Velocity (in fps)	Energy (in ft. lbs.)	Bullet Path (in inches)
Russian 7.62	1,513	752	-67.0	925	281	-566.1
U.S. .30-06	1,718	1,134	-62.4	1,086	454	-443.0
U.S. 7.62mm	1,640	1,033	-68.5	1,056	428	-484.9

The lighter, 148-grain Russian bullet lost velocity and energy more quickly than either American round, although at 500 yards all three projectiles had dropped a very similar amount, given their 100-yard zeros. (My 10 percent rule of thumb is evident, too, with the 7.62mm NATO bullet performing that degree less than the .30-06.)

At 1,000 yards the Russian round proves considerably inferior to the American cartridges. Clearly, the 7.62 x 54mm is a suitable sniping round at no more than about 700 or 800 yards, after which its velocity goes subsonic.

A Chinese brochure about their Korean War snipers depicts this stalemate phase of the war, with "volunteer snipers . . . backed into tunnels" who would reappear "to inflict great loss on the enemy." China's greatest Korean War sniper, Sergeant Zhang Taofang, his country claimed, shot 214 American and Allied soldiers in just 32 days. Photos of Zhang show him firing an ordinary unscoped Mosin-Nagant.

Whether optically equipped or not, there can be no doubt that Chinese snipers could place shots with precision. "Snipers hit a coffee can that I was heating over one of the alcohol heat tablets," reported Marine Sergeant Charles Eberlin. "It went through the edge of the sandbag and hit the can. That really shook me up for a while." On another occasion, a sniper shot the epaulet off his field jacket, and he witnessed a wounded Marine being carried on a stretcher hit and killed by a single long-



Communist China's most accomplished Korean War sniper, Sergeant Zhang Taofang, allegedly shot 214 Allied soldiers.



His scope removed to allow fast reloading, a Marine sniper covers the withdrawal from the Chosin Reservoir.

range shot. At Chosin Reservoir, reports Army Captain Herbert Bryant, 3rd Battalion, 31st Infantry Regiment, a single Chinese sniper mortally wounded his battalion executive officer, Major Clifton Couch Jr., and killed the S-4 supply officer.

Attentive and patient, enemy snipers sought to exploit even a lax second. Army Private Wallace Witt was killed by a sniper "while eating his C-rations." Marine James Akers sat down safely (he thought) behind a rock to eat lunch when he was shot by a sniper. Army Corporal Carl Cook "raised his head above the skyline," a witness reported, "and a sniper shot him just above the eyes." Another GI fired a round from a 75mm recoilless rifle, took aim again after a loader tapped his shoulder, and then collapsed, "a sniper bullet through the head." Medal of Honor recipient William E. Shuck Jr., a Marine from Cumberland, Maryland, fought magnificently through a lengthy assault and then, while helping evacuate his last wounded comrade, was struck down by a sniper's bullet. While inspecting his regiment's frontline positions, Colonel Arthur S. Champney, a regimental commander in the 25th Infantry Division, only briefly rose up and was severely wounded by a sniper's bullet.

On occasion, enemy snipers were lures for the age-old tactic of drawing troops into a trap. On 5 November 1950, a British infantry company went after a Chinese sniper who had been plinking at passing trucks. "Having established that there was

only one sniper, we took the hill with ease,” recalled then-Captain David Wilson. Then swarms of Chinese swept around the hill, blocking any escape, and they all would have been lost had not the Royal Australian Regiment launched an immediate assault.

U.S. SNIPER TRAINING AND ORGANIZATION

Never before had so many U.S. Army snipers been authorized as in the Korean War—27 per battalion, or one per infantry squad—but the Army provided no training, no manuals, not even the criteria for selecting a sniper. It was up to local commanders to figure it out. “Each Army squad ends up with a piece of equipment that no one can use,” wrote a GI in *American Rifleman* magazine. “The sniper rifle has a telescopic sight, though no soldier or officer receives training in the use of this complicated gadget.”

The Marine Corps was no better off. Private Juan Alvarez of the 5th Marine Regiment received no special training, not even a briefing, before he was appointed a sniper; he simply shot better with an M1 than most of his comrades. Still, he reports, “I usually hit what I aimed at.” By early 1952, at last his regiment operated its own sniper school, with students firing an assortment of scoped M1s and Springfields.

Like Alvarez, 7th Infantry Division sniper Chester “Chet” Hamilton went through no sniper training, but he’d been a competitive rifle shooter. Firing an M1C sniper rifle, Hamilton’s first major engagement proved almost a shooting gallery. His Chinese foes, occupying an uphill trench, were silhouetted against the sky; he estimated he shot at least 40 soldiers. “It was a lot like going to a carnival,” he recalled, “and shooting those little toy crows off the fence. *Bap!*” On 14 May 1953, his unit was overrun by Chinese, leaving Hamilton badly wounded, though he would survive to continue competitive

shooting, eventually earning a President’s Hundred Tab and Distinguished Rifle Badge.

Among the units operating independent sniper schools was the 3rd Battalion, 1st Marines, its founding inspired by a Chinese sniper’s bullet that narrowly missed the commander. Each company contributed six two-man teams for the three-week course, conducted just behind the front. Students fired Springfield and M1 sniper rifles, plus learned how to snipe with the .50-caliber machine gun.



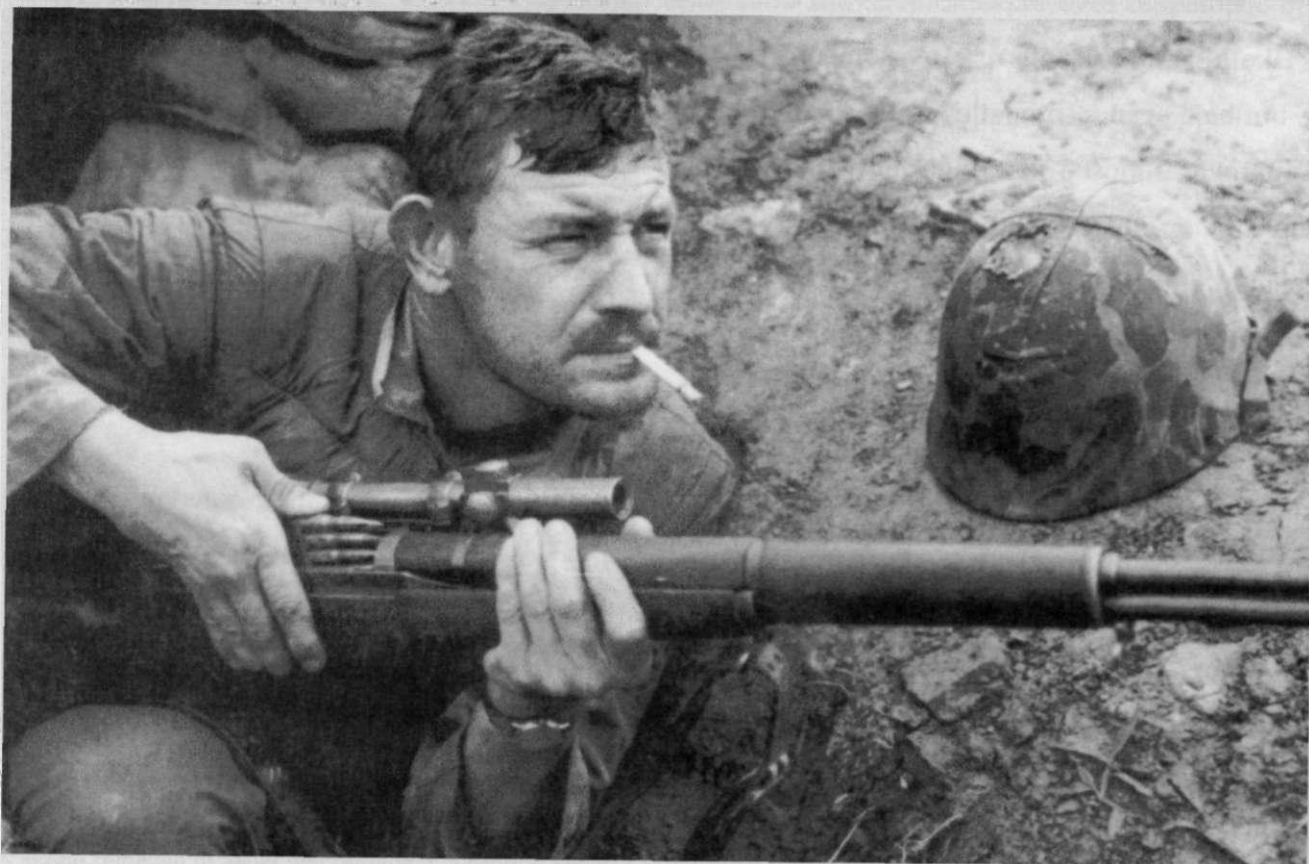
A USMC sniper on the line in Korea.

Technical Sergeant John E. Boitnott

To instruct the 5th Marine Regiment's newly organized sniper school, the regimental commander recruited his unit's Distinguished Riflemen and high expert shooters, among them, Staff Sergeant John E. Boitnott. Considered by many to be the Corps' most accomplished Korean War sniper, this competitive rifleman—who'd earned his Distinguished Badge two years earlier—helped teach the course and then returned to the front lines to try his own hand at scoped rifle shooting.

Early on it became a personal affair for Boitnott when a Chinese sniper's bullet ricocheted off his helmet. Clearly, enemy snipers were targeting the 5th Regiment's trenches on Outpost Yoke, but it was almost impossible to spot them. Then Boitnott devised a winning (though dangerous) countersniping technique. Partnering with Private First Class Henry Friday, Boitnott hunkered down, rifle ready, eye to his scope, while Friday voluntarily trotted along a trench line to lure Chinese fire. Sure enough, an enemy sniper rose to the bait, plinking a shot at the Marine lines—and taking in return a dead-on shot that ended his sniping career. Witnessed by Lieutenant Homer Johnson, the distance was later plotted on a map: 670 yards.

Over the next two days Private Henry and Staff Sergeant Boitnott continued this tactic, resulting in nine confirmed kills at ranges up to 1,250 yards. However, when war correspondents publicized their controversial countersniping effort, higher command halted it. The 5th Regiment's 1953 staff journal recorded Sergeant Boitnott's continuing sniping:



Staff Sergeant (later Technical Sergeant) John Boitnott reloads his M1C on Outpost Yoke, 1953.

"July 14—In mid-afternoon Sgt. Boitnott on Outpost Bruce expended one round in killing one enemy."

"July 15—S/Sgt. Boitnott on Outpost Bruce expended eight rounds of rifle ammunition in killing four enemy."

"July 17—This morning S/Sgt. Boitnott on Outpost Bruce killed one enemy at long range with a rifle and four hours later killed another."

"July 18—S/Sgt. Boitnott of "I" Company killed one enemy with one round of rifle fire."

As a result of his deadeye shooting, Boitnott was meritoriously promoted to technical sergeant, while reports of his countersniping appeared in newspapers all across America.



Private First Class Henry Friday (right) lures enemy sniper fire, so Staff Sergeant Boitnott can return fire.

"In nothing flat," the battalion commander observed, "there was no more [Chinese] sniping on our positions. Nothing moved out there but that we hit it."

The 2nd Battalion, 5th Marines likewise began training snipers in April 1951 to serve in a battalion-level sniper platoon. This weeklong course was overseen by the battalion executive officer, a World War II veteran who'd led a reconnaissance company against the Japanese. It was an intense seven days, with students shooting or studying or exercising from dusk to dawn. The 2nd Battalion's snipers proved deadly to 600 yards, their maximum range dictated not by the shooters' abilities but by the limited capabilities of their scopes and rifles.



Army sniper Joe Roberts with his M1D. Each Army squad was authorized a sniper.

Army battalions, too, ran sniper courses. In the 25th Division, the 1st Battalion, 35th Infantry's sniper school was overseen by the battalion intelligence officer, Captain Albert Ives Jr. The Army's 2nd Infantry Division operated a division-level sniper school, as of May 1952, according to the unit's history. Graduates went back to their units with new sniper rifles and a special emblem for their uniforms.

KOREAN WAR SNIPER WEAPONS AND OPTICS

Although officially considered obsolete by the Army and Marine Corps, the 1903A4 and M1941 Springfield sniper rifles saw Korean War service, as did target versions of the Winchester Model 70 rifle. Primarily, however, GI snipers

Sniping with the .50-Caliber Machine Gun

During the Korean War's final phase, entrenchments often faced each other at 1,200 or more yards, seemingly beyond rifle range. This inspired some Americans to mount scopes on .50-caliber machine guns for single-shot firing. These slugs, weighing 700 or more grains, generated five times the energy of a .30-06 and at 1,000 yards proved half as susceptible to wind drift as a .30-caliber projectile. Especially useful at pummeling enemy bunkers, at 1,500 yards the 709-grain M2 ball slug could penetrate 6 inches of dry sand or 21 inches of clay soil.

A heavy-rifle pioneer, Captain William S. Brophy tested the accuracy of .50-caliber machine guns when fired in single-shot mode. Locking a gun to its tripod with a traverse and elevation mechanism, he could raise or shift the gun at very precise increments. Here are the results of his 1952 tests, fired with standard ball ammunition:

.50-CALIBER BROWNING MACHINE GUN ACCURACY

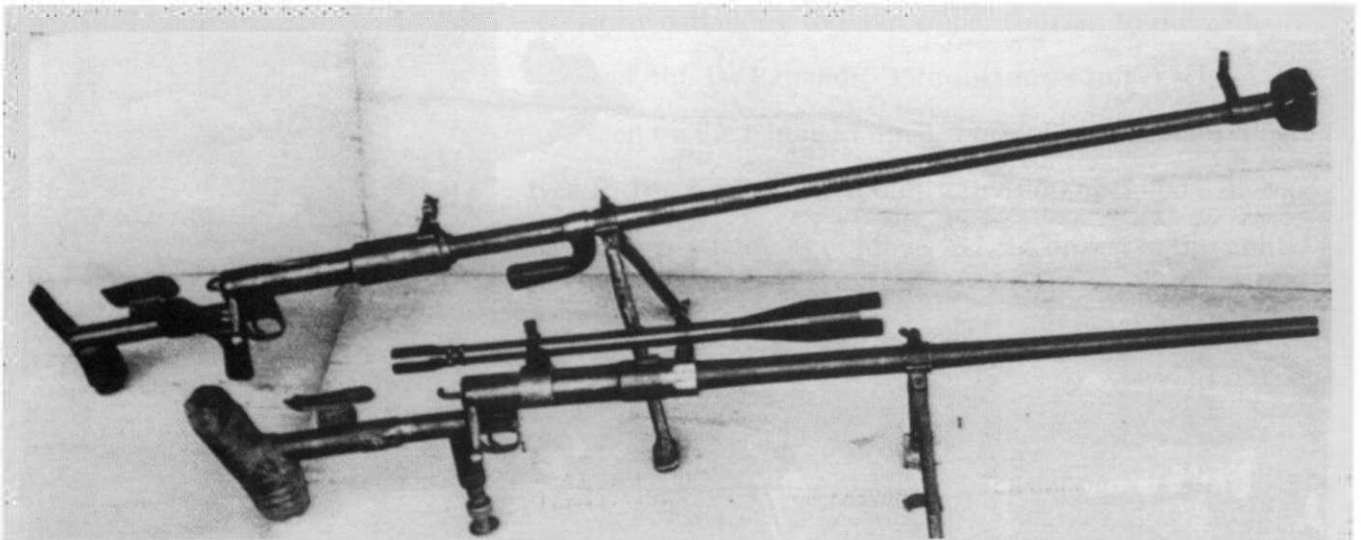
Distance (in yards)	Actual Group (in inches)	Group (as minutes of angle)
300	15.8	5.2
1,000	80.5	8.0
1,400	135.5	9.7



A U.S. Army captain aims a scoped .50-caliber machine gun at Chinese lines in Korea. (Courtesy of Robert Bruce Military Photos.)



By observing long-range bullet impacts, the mighty .50's rounds could be walked into a target. (Courtesy of Peter R. Senich.)



Placing .50-caliber barrels on captured Soviet PTRD actions, U.S. Army Captain William Brophy built the first heavy sniper rifles.

Firing an 80-inch group at 1,000 yards was not precision shooting. But when fired repeatedly or simultaneously with several guns, hits could still be made against distant enemy targets.

In Korea, 1st Marine Regiment snipers learned at their regimental sniper school to shoot .50 calibers to 1,200 yards. "The range was super," reports USMC Sergeant Charles J. Eberlin. "We could squeeze off one round at a time, and with tracer bullets we could zero-in on a target more easily."

U.S. Army Colonel K.D. Mertel reported considerable success with the big .50s:

"Any movement, even a helmet above the trench in enemy view, was a target for snipers. We did the same thing, using a sniper in each platoon, employing the .50 caliber machine-gun [and] telescopic sight, firing a single round at a time. I like to think we gave the enemy a number of permanent headaches."

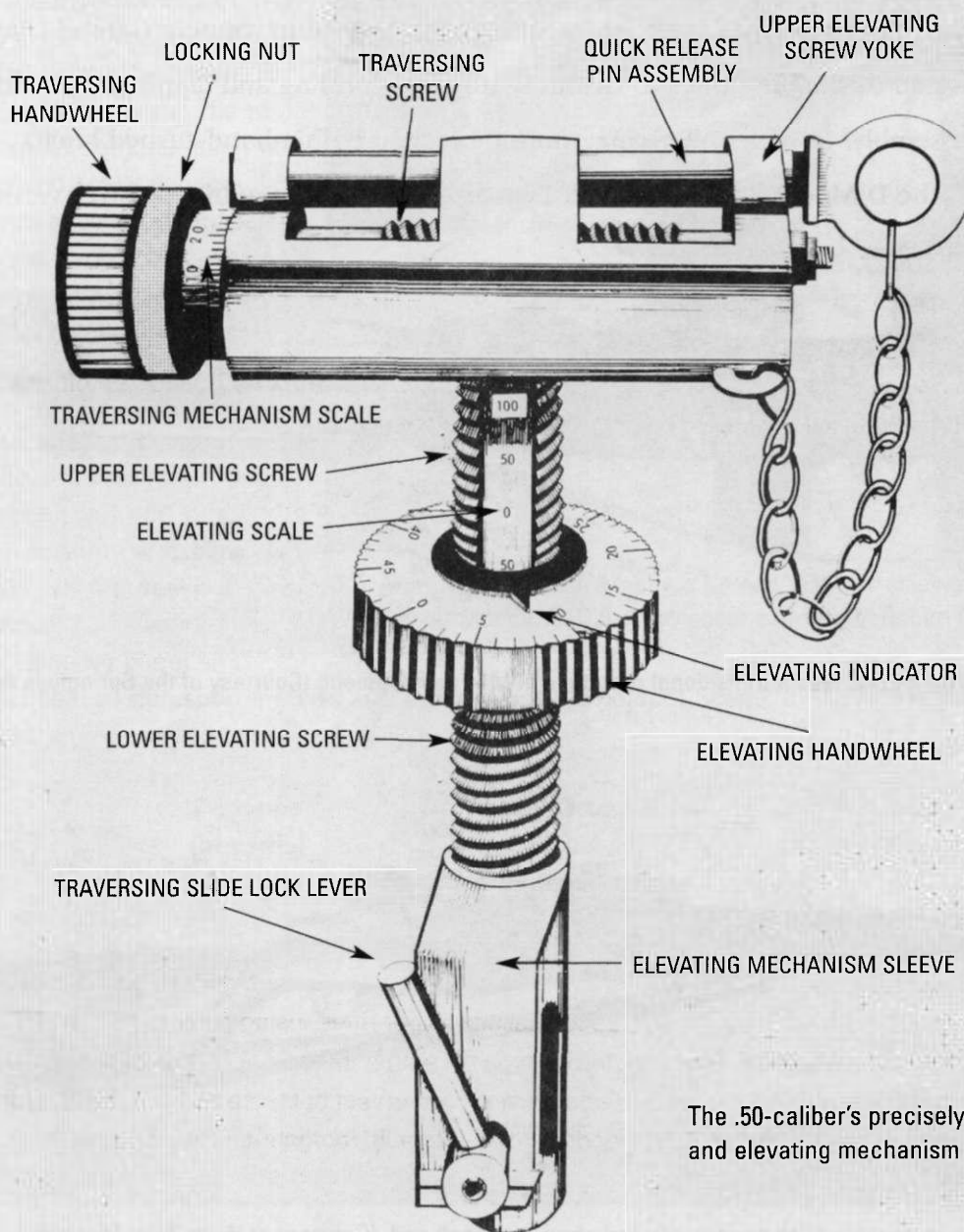
Master Chief Herb Renner, a Marine medical corpsman, witnessed such an engagement. On a distant hill a Chinese soldier, apparently digging a trench, kept bobbing into view to toss a basketful of dirt over the top. "The gunner told me to take a pair of binoculars he had and watch," Renner recalled. Like clockwork, the figure rose again, exactly as a well-timed bullet arrived, at so great a range that he must not have thought it possible.

Studying such results, it occurred to Captain Brophy that he might achieve even greater accuracy with a lightweight single-shot rifle. Thus he built the first true .50-caliber sniper rifles, using captured Soviet PTRD antitank rifle actions. His two versions replaced the 14.5mm barrel with a .50-caliber machine gun barrel or a lightweight .50-caliber barrel; then he added a bipod and an elevation wheel built into the pistol grip. Here are the results of his accuracy tests, fired at Edgewood Arsenal with a lightweight barrel:

.50-CALIBER SINGLE-SHOT (LIGHT BARREL) ACCURACY

Distance (in yards)	Actual Group (in inches)	Group (as minutes of angle)
300	16.2	5.4
600	29.1	5.8
1,000	54.0	5.4

These groups, notably better than those fired with a machine gun, demonstrated that significant accuracy was possible with a .50-caliber rifle.



The .50-caliber's precisely adjustable traversing and elevating mechanism allowed exact aiming.

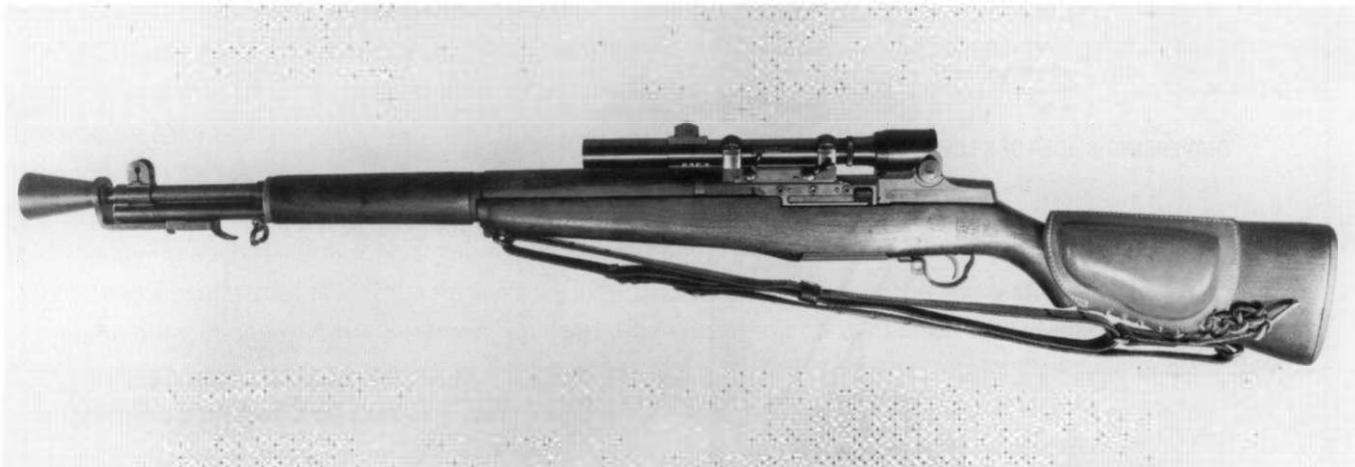
employed semiautomatic sniper rifles derived from the Garand rifle, designated M1C or M1D.

Developed late in World War II, the M1C incorporated a Griffin & Howe mount on the receiver's left side, which required expensive, time-consuming tapping and drilling. It was topped by a 2 1/2x Lyman Alaskan scope, the M81 version containing a simple crosshair reticle while the M82 had a tapered post reticle. Both scopes used a rubber eyepiece. In 1952, the USMC adopted its own version of the M1C, designated the Model 1952, which used a Stith-Kollmorgen 4x scope, a high-quality optic with target knobs. Marine battalions were authorized 15 such rifles per scout-sniper platoon, with another 30 for regimental-level scout-snipers.

The M1D was an Army development produced by Springfield Arsenal to simplify Garand conversions to sniper rifles. Instead of shipping rifles to Griffin & Howe for drilling and tapping, the D Model used a different barrel assembly, to which the scope mount attached with a hand-turned knob. During the Korean War, the D Model used the 2 1/2x Lyman Alaskan scope, while postwar versions upgraded to the 4x M84 scope.



An experimental sniper rifle, the T22E2, was a transitional prototype in M14 development. (Courtesy of the Springfield Arsenal Museum.)



An M1C sniper rifle. Note the removable flash suppressor and strap-on cheek pad. (Courtesy of West Point Museum.)

Winchester Model 70 Accuracy

First proposed as a Marine sniper rifle in 1941, the Winchester Model 70 bolt action saw limited use in the Korean War and by Vietnam had become the Marine Corps' initial sniper rifle. Chambered in .30-06, its accuracy had been limited by the use of standard military .30-caliber ammunition, but when fed quality match-grade loads (as recommended in 1941), it performed accurately.

U.S. Army Major William S. Brophy, a World War II combat veteran, competitive marksman, and ordnance officer, extensively tested the Model 70, taking his personal rifle to Korea for demonstration firings and actual engagements against enemy personnel. Brophy also was a driving force behind .50-caliber sniping in Korea.

Returning to the States, in 1952–53, he tested several Model 70s at Maryland's Aberdeen Proving Ground, shooting to 1,400 yards with a variety of quality loads. His first test bed was a Model 70 "sniper" rifle, with a heavy barrel,



U.S. Army Major William Brophy, a Korean War-era sniping pioneer, fires a Winchester Model 70. (U.S. Army photo courtesy of Robert Bruce Military Photos.)

Distance (in yards)	Actual Group Size (in inches)	Size (as minutes of angle)
100	2.0	2.0
300	6.5	2.2
600	16.6	2.7
1,000	33.8	3.4

To "test the envelope" of the .30-06, Major Brophy also fired 60 rounds at 1,400 yards, a distance considered beyond the rifle's effective range. For this test, Brophy used a wide-tapered "bull" barrel and three kinds of ammunition: Remington 180-grain Palma load, Peters 180-grain Match load, and a 150-grain Sierra Match bullet handload. The results:

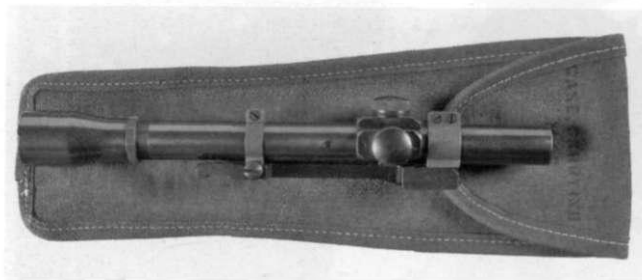


Ammo	Actual Group Size (in inches)	Size (as minutes of angle)
Palma Load	85.8	6.1
Peters Match	102.0	7.3
Sierra Handload	88.8	6.3

As is apparent, these 1,400-yard groups opened up, reflecting the vagaries of wind and declining relative target size at greater distances.

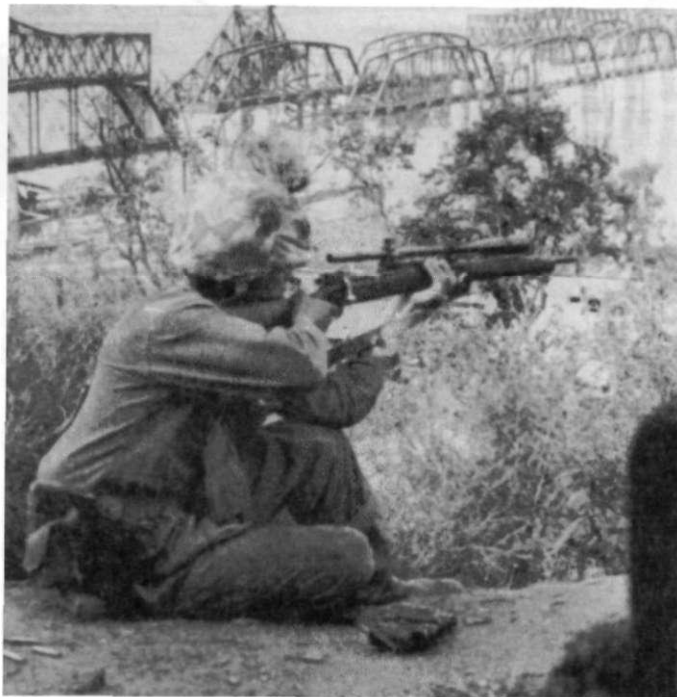
None of Brophy's groups, however, came close to the best ones then being fired by civilian benchrest shooters; a 1952 Hornady Bullets advertisement in *American Rifleman* displayed a 20-round group fired at 100 yards by Jim Flagle of Central City, Nebraska. It measured only 0.59 inch, demonstrating an accuracy potential that would not be realized in sniper rifles for several more decades.

A serious long-range shooter, Brophy would go on to earn the Distinguished Rifleman's Badge and make the President's Hundred. In 1968 he shot on the U.S. Palma Match Team, where he fired the third-highest individual score ever achieved in those matches.



Above: The Lyman Alaskan scope, as the M81 or M82, was found on M1Cs and M1Ds.

Right: USMC sniper Fred Fees Jr. aims his M1941 sniper rifle across the Han River, 1950.



Below: The postwar M1D had an M84 scope. It was still found in National Guard units well into the 1980s.





A Marine sniper with an M1C on outpost duty in Korea.



Army sniper Private First Class E.W. Stone with an M1D, his service's primary sniper weapon in Korea.

Both the C and D Models put their scopes offset-left to allow clip loading and the ejection of spent cartridges, while also leaving the peep sight available. To achieve proper eye alignment, a leather cheekpad was strapped to the butt. An often seen accessory was a slotted or cone-shaped flash hider, but if this device worked loose it degraded accuracy by disrupting barrel harmonics.

In 1953 Aberdeen Proving Ground tested the M1D's accuracy, using standard M2 ball ammunition. The resulting data is listed below, but keep in mind that match-grade ammo would have achieved better results and that the optic in this period offered only 2 1/2x magnification.

"Wanted: Sniper Rifle"

The U.S. Army's authorization of one M1C or D sniper rifle per infantry squad did not mean these rifles actually were in the hands of the soldiers who needed them. Private First Class John B. House's platoon in the 2nd Infantry Division apparently could not obtain any sniper rifles, which caused the GI to take the bold move of writing a letter to *American Rifleman* magazine, which appeared in the December 1952 edition.

House's letter, labeled "Wanted: Sniper Rifle," read:

"I've been watching the 'Chinks' [Chinese Communists] out there, just out of M1 range, running from trench to trench. They are not altogether out of range, but about 500 yards, and with an M1 it is just a little too far to be accurate with just one shot, especially with a peep sight. I was just hoping that maybe one of your members . . . might have a rifle with a scope on it that would reach out and get them—one that he might not be too fond of and wouldn't mind donating to our platoon. It would have to be .30 cal. so regular Army ammo would fit it. I would like to buy it from you, but I don't make too much. When I get out of the Army I could pay for it, but not at the present time. It would stay with my platoon always as special equipment and pay for itself a hundred times, as far as killing the enemy goes. Maybe you could just loan us one, and it could be returned when this thing is over. At any rate, we would really appreciate it if you could help us; we need it badly. I would like to hear from you about it."



BUEHLER MOUNT CHOSEN FOR KOREA SNIPER RIFLE

In answer to a plea in the "Rifleman" last winter, Bill Schumaker of Colville, Washington built a 500-yard sniper rifle.

A carefully selected .30-'06 issue Springfield was found and equipped with a K6 in a BUEHLER standard 1" mount. A BUEHLER Safety was used in the bolt altered in BUEHLER bolt bending blocks.

Schumaker then Airmailed the completed rifle to Pfc. House, Co. H, 23rd Inf. Reg., 2nd Div. with his compliments. House will now be able to make his shots count beyond the range of his M-1.

Private First Class John House, 2nd Infantry Division, requested a sniper rifle in the *American Rifleman*—and he got it. At left is the man who provided it: custom rifle maker Bill Schumaker.

Bill Schumaker, a custom rifle maker in Colville, Washington, answered Private First Class House's request, building a bolt-action scoped sniper rifle, which he airmailed to Korea "with his compliments." Schumaker proudly posed with the rifle for an ad in the May 1953 *American Rifleman*, which announced, "House will now be able to make his shots count beyond the range of his M-1."

The rifle was in Korea for the contentious outpost fights of May–July 1953, but no further word of its employment appeared. What's most interesting about the story, I think, is that as late as the 1950s, a private citizen could supply a weapon to a countryman at war—something that probably has not happened since.

M1D RIFLE ACCURACY TEST

Distance (in yards)	Actual Group Size (in inches)	Group Size (as minutes of angle)
100	4.0	4.0
300	12.1	4.0
600	36.8	6.1
1,000	64.7	6.5

The post-Korea M1D was essentially the same weapon except for its 4x scope, which offered 1-minute (1 inch at 100 yards) elevation and windage adjustments on its simplified target-style knobs. The M1D remained the Army's primary sniper weapon well into the Vietnam era. In the early 1980s, some of my Reserve Component sniper students still had M1D rifles, which I fired myself, finding that they shot with impressive accuracy to 600 yards, often achieving 9-inch groups (1.5 minutes of angle) or better.

INFRARED NIGHT SNIPING

Fielded in the closing months of World War II, infrared night scopes continued to evolve so that the Korean War devices had twice the range as earlier models, about 135 yards, although the battery pack was bulky and heavy and required lengthy recharging. Primarily these were mounted on M1 Carbines, but a few IR scopes were mounted experimentally on M1D sniper rifles, too.

Unfortunately, despite the Chinese staging mostly night attacks, these innovative infrared systems

didn't seem to have much effect on combat. The problem was not the devices, but a lack of training and little command emphasis on using them. "Many men returning from Korea report that their [IR] sniperscopes were not removed from the original packing cases since there were no men trained in their use," reported the Army's October 1951 *Infantry Journal*.

This was verified by S.L.A. Marshall, who observed:

"During winter operations they [infrared scopes] were present in such limited numbers as to be hardly more than a novelty for the amusement of the command at regimental headquarters. Infantry line commanders frequently expressed the view that if they could get the equipment in quantity, it would be a godsend in night defense."

General Marshall deliberately sought out firsthand accounts of infrared combat usage, but "it was impossible to find any data." My research yielded only one Korean War account, of an Australian paratrooper, Sergeant C.W. "Frenchy" Ray, who used his infrared-scoped carbine to guide an otherwise "blind" patrol—although he managed to steer them around a Chinese ambush. Infrared devices offered a decisive advantage and combat multiplier that could have reaped great results, but very little was achieved.



An experimental infrared T-1 weapon sight mounted on a Korean War-era M1C rifle. (Courtesy of U.S. Army and Robert Bruce Military Photos.)



The heavy infrared battery required lengthy recharging after each use, one reason it was not employed extensively.

U.S. SNIPER AND COUNTERSNIPER TACTICS

Sniper employment varied as the war progressed, with little or no use on the Pusan Perimeter and some employment at the Inchon invasion and subsequent advance northward. Then, during the long stalemate on the 38th parallel, snipers saw extensive use.

These outpost and hilltop fights soon fit into a pattern of sniping in daylight and large-scale Chinese attacks in darkness accompanied by bugles and loudspeaker music. In many American units, infantrymen manned the lines at night while the snipers rested, and the snipers stood watch in daylight while the infantrymen slept, their keen eyes scanning the terrain between the lines to keep the Chinese and North Koreans from reconning friendly positions.

During Chinese night attacks, U.S. forces sometimes employed large searchlights—a mile or



Mounted on an M1 Carbine, the M3 infrared sniperscope and a spotlight. (Courtesy of West Point Museum.)

more behind the front—to illuminate the bottom of low-hanging clouds, creating enough ambient light to see and engage targets with ordinary rifle scopes and sights. (I once witnessed an M48 tank's xenon searchlight used similarly in Vietnam and was surprised at how well the reflected light illuminated the area.)

Another innovation was the use of "sniper patrols," two-man sniper teams accompanied by four infantrymen. "The scout-sniper patrol is a light, fast, compact, self-sustained group," an 8th Army study said, "capable of moving swiftly and striking the enemy with deadly accuracy." Departing in predawn darkness, such patrols advanced 800 to 1,000 yards toward Communist lines, concealed themselves, sniped during daylight, and then returned to friendly lines after dark. They were most effective at dawn, when the winds were calm and, on suitable terrain, the rising sun shone in the enemy's eyes.

Typical Korean War sniper photos depict Americans sitting unconcealed on sandbags, but the reality was quite different. For real combat, snipers preferred "camouflaged bunkers which protruded



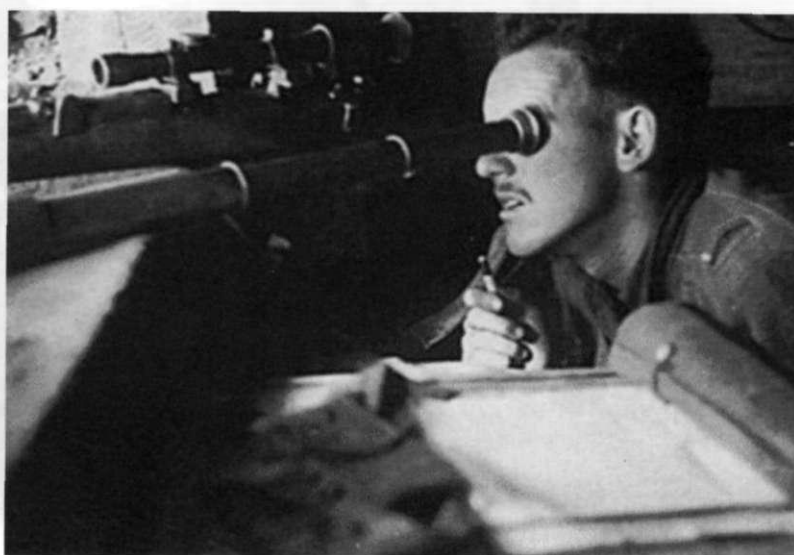
Chinese human-wave attacks, rarely staged in daylight, sometimes overran United Nations positions.



Hugging the earth, this sniper minimizes his presence in hopes of getting a shot. Inset: Overlooking the "Punchbowl" on the 38th parallel, this posed photo suggests no enemies are within range.



Both Army and Marine (shown here) sniper teams had a shooter and a spotter.



While his mates rest, this alert Aussie sniper watches for enemy activity.



Having just fought off a Chinese mass attack (note the bodies, left), an Army sniper covers a comrade bringing in prisoners.

only a foot above the ground's surface," the 8th Army study said. "These were artfully concealed, and the occupants entered or left only in darkness."

When it came to countering enemy snipers, most often ordinary infantrymen handled this. Corporal Vidal Reyes of the 3rd Infantry Division was awarded a Silver Star for "creeping and crawling forward through rock strewn and bullet-riddled terrain" to take "calm and careful aim with his own rifle" and eliminate two enemy snipers.

During the Inchon invasion, *Time Magazine* reported:

"A squad of U.S. Marines was raising the Stars & Stripes over the American Embassy in Seoul when . . . a communist sniper on a rooftop fired. Several dozen Marines aimed.

Instead, Captain Charles D. Fredrick nodded to one rifleman who nailed the sniper with his third shot. 'One sniper, one Marine,' Capt. Fredrick announced."

More often, U.S. forces readily overmatched enemy snipers who inflicted casualties or caused delays. The most used countersniper weapon in Seoul was a tank's main gun, both by the Army and Marine Corps. Sometimes it was artillery, which Chinese forces along the 38th parallel soon learned they could dodge by listening for the shrill of incoming rounds. A U.S. artillery forward observer on Pork Chop Hill, after several times watching an enemy sniper leap into his tunnel just as shells arrived, "finally got the sniper by timing 105mm salvos with mortar rounds." His trick was to bring in well-aimed mortar rounds, which fall silently, a half-minute after the last 105 round exploded. "It got him when he popped back out."

Such lavish firepower awed the enemy. A Chinese history of the war observed:

"One Chinese soldier stated that if the Americans encountered a single sniper hiding in a village or house, they would invariably call in massive artillery and air attacks, destroying the entire village and killing everyone in it. 'Why do they do this instead of simply sending in soldiers to kill the sniper?'"

Equally, though, it could be asked: what was a sniper doing firing from among noncombatants?

ALLIED SNIPERS IN KOREA

A dozen allies contributed troops to the Korean War, with a good number of them incorporating snipers in their contingents. The 20th Philippine Battalion Combat Team, for example, integrated snipers, infantry, scouts, and forward observers for compact, self-supporting maneuver elements, even at platoon level. One such element, the 2nd Reconnaissance Platoon, led by Second Lieutenant Fidel V. Ramos, overwhelmed a Chinese position on Hill Eerie, an outpost of Pork Chop Hill, on 22 May 1952, effectively employing snipers to hold off Chinese reinforcements. (In 1992, the same Ramos would be elected his country's 12th president, succeeding Corazon Aquino.)

British Commonwealth forces—initially a brigade and later a division—combined units from Britain, Australia, Canada, and New Zealand, with many snipers in their ranks, including World War II veterans. Canada's elite Princess Patricia Light Infantry Brigade, for example, included World War II sniping legend Tommy Prince and other keen-eyed Canadian Indians. Another Canadian sniper, Ted



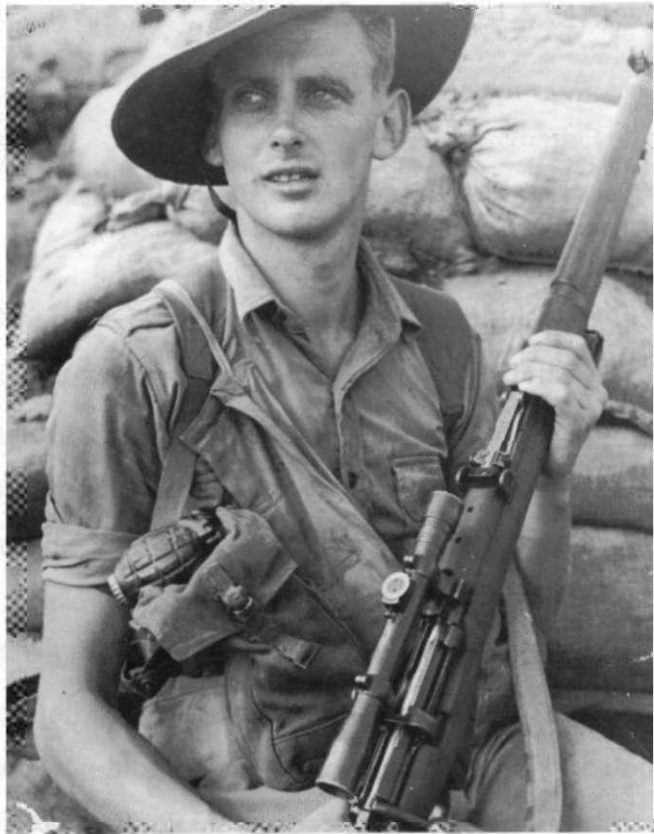
Just as in World Wars I and II, Canadian Indians served as snipers in Korea, including this father-son team, John J. Wheeler and John Jr., both from Saskatchewan.



British Commonwealth troops check a dead North Korean sniper in Seoul, 1950.



An Australian sniper examines a captured Soviet sniper rifle in Korea, 1951.



Aussie sniper Peter Ennis, ready for a mission in Korea, 1952.



A Canadian sniper with the Princess Patricia Light Infantry in Korea. His weapon is a Lee-Enfield No. 4 Mk-I (T).



Australia's most renowned Korean War sniper, Ian "Robbie" Robertson.

Zuber, went on to be a highly acclaimed artist and spent a career chronicling Canada's military history.

Australia's most renowned Korean War sniper, Ian "Robbie" Robertson, was the son of a World War I ANZAC sniper who'd fought at Gallipoli. Growing up in the outback, Robbie learned from his father how to shoot and hunt; as well, old veterans taught him to master the Lee-Enfield rifle—which saved his life on 22 October 1950. That morning, Robertson and his sniper teammate, Private Lance Scully, stumbled into a 30-man platoon of North Koreans hiding in a ditch just 25 yards away. Instantly Scully went down, seriously wounded, but Robertson had learned to shoot at close quarters. Looking over the top of his sights, keeping both eyes open, he shot the closest enemy soldier, ran the bolt and did it again, ran the bolt and did it again, ran the bolt and did it again—counting his shots—while more enemy, constrained by the ditch walls, kept coming at him. "I started off with 11 rounds," he explained, "and would fire until I had four rounds left and then I would insert another clip of



An Australian sniper, Private Bill Coffman, examines enemy positions through his scope.

five." As an old vet had taught him, Robertson kept shooting and reloading smoothly, never running out of ammo. "That's exactly what I did and it worked. The whole ditch was cleaned out."

On another occasion, Robertson spent a week sniping at a Chinese-held ridgeline extending 900 to 1,200 yards before him. Setting his scope at maximum elevation, he engaged enemy soldiers but could not be certain that he was hitting them. Then his unit captured the ridgeline, and he found a pit containing 30-some bodies. "I went a bit like jelly for a minute and thought, 'Oh, shit, I'm in a grisly business here.'" A career soldier, Robertson also spent a tour in Vietnam, though not as a sniper.

For Robertson and all the Allied snipers and servicemen fighting in Korea, the conflict soon tapered off with a July 1953 armistice, which brought this undeclared war to a close. In the war's three years, snipers and sniping had grown but not evolved; except for the employment of the .50-caliber machine gun in a sniping role, there were no real innovations, either tactically or technologi-



Their minds corrupted by propaganda images of American “bogeymen,” North Korean children have been conditioned to hate and fear U.S. soldiers.

cally. The stalemate phase, which pitted forces along ridgelines and on hilltops facing each other across wide valleys—*ideal sniping terrain*—should have sparked all sorts of innovations. But there were very few. Nor did the Army or Marine Corps create Stateside sniper schools and an infrastructure to support them, relying instead on low-level battalion and regimental schools in Korea to train snipers for combat.

And after the shooting stopped, once again, even this sniping effort soon faded away.

THE VIETNAM SNIPING WAR

Despite Korean War studies that detailed the need for snipers, and articles in military publications that conveyed sniping lessons from Korea, nothing really changed after that conflict. As quickly as the shooting stopped in 1953, the interest in snipers and sniping faded away. There was no further development of hardware or tactics or infrastructure, nothing. Thus, when U.S. Army and Marine Corps combat forces deployed to Vietnam 12 years later, they arrived without trained snipers and, in most cases, without even scoped rifles. All would have to be learned again, from scratch, and at a cost in blood.

Initially the U.S. command in Saigon may not have thought sniping had any role in Southeast Asia and the close-range shooting jungle fighting implied. That misunderstanding burst on 11 July 1965, when two U.S. Marines were shot dead and several more wounded by a Vietcong (VC) sniper not far from Da Nang airbase. More sniping incidents would follow.

NORTH VIETNAMESE AND VIETCONG SNIPERS

Actually, the Vietcong had been employing snipers long before U.S. conventional troops arrived in Vietnam. On 23 August 1963, before most Americans had even heard of Vietnam, U.S. Army Special Forces

Sniping in the Caribbean

The most decisive

Caribbean conflict of the 1950s was Cuba's guerrilla war, led by a fiery young revolutionary, Fidel Castro. Operating from the jungles of Cuba's Sierra Maestras, Castro's 26th of July Movement ambushed and sniped at strongman Fulgencio Batista's army, only to disappear before reaction forces could arrive. In these hit-and-run fights, Castro—somewhat of a firearms aficionado himself—carried a scoped Winchester Model 70, as did a number of his closest comrades. Thus, it could be said, the father of Cuba's Marxist revolution was a sniper.

Five years after Castro came to power, his attempt to infiltrate clandestinely into the neighboring Dominican Republic during civil unrest was met by the deployment of U.S. troops. As quickly as they arrived, U.S. forces, primarily the 82nd Airborne Division, came under intense sniper fire. Lawrence Yates, a U.S. Army historian, observed:

"Sniper fire accounted for the majority of American casualties during the intervention. While trees and other natural objects provided some protection from fire, man-made structures afforded little in the way of a shield. The bullet from a sniper's high-powered rifle passed easily through lumber and concrete blocks, the most common building materials in the Dominican Republic. Solid concrete offered some protection but tended to fragment and cause ricochets. For maximum security, soldiers relied on sandbags piled three high in relatively exposed areas and up to fifteen feet high on flat rooftops and the like."



Revolutionary Fidel Castro and his scoped Winchester Model 70. Note that his brother Raul (left) also has a scoped rifle.

American rules of engagement hampered an effective response, requiring that a unit be in danger of being overrun before GIs could return sniper fire—which, the U.S. commander, Lieutenant General Bruce Palmer, wrote, “had a demoralizing effect.” The exception was that U.S. snipers could return sniper fire—and suddenly, for the first time in military history, considerable numbers of ordinary soldiers affixed privately acquired scopes to their issue weapons and became “snipers.” This was simple for the paratroopers, armed with brand-new M16 rifles, because an inexpensive adapter allowed scope mounting on any Colt automatic rifle.

One resourceful 82nd Airborne officer, First Lieutenant Frank D’Amico, took it a step further, borrowing a .50-caliber machine gun and scrounging a rifle scope and mount for it. “He plotted all the windows where snipers had previously appeared,” wrote a cohort, Captain Theodore Jagosz, “and set up the gun to engage

those locations the moment a target appeared.” So impressed was Jagosz by the heavy weapon’s effectiveness that when he later deployed to Vietnam with the 25th Infantry Division, he too used a scoped .50-caliber machine gun on a tree platform to engage enemy troops at the Fil Hol Rubber Plantation, some 1,500 meters across a wide river. As in the Dominican Republic, the heavy sniper gun performed impressively.



In the Dominican Republic, 1965, an 82nd Airborne Division sniper draws a bead on an insurgent. His weapon is an M1D.

Staff Sergeant Claude McBride was shot and killed by a Vietcong sniper while defending a hilltop landing zone near An Diem.

Communist snipers definitely were out there, and, although initially encountered infrequently, they proved a zealous foe. When a Special Forces A Team captured a Vietcong sniper at Phuoc Long, the prisoner suddenly grabbed a grenade from the web gear of Master Sergeant Charles Hosking Jr. and rushed toward a group of officers. Master Sergeant Hosking, “instantly realizing that the enemy intended to kill the other men,” overtook him as he pulled the pin and, with no option left, grasped the enemy sniper in a bear hug and absorbed the blast with his own body, dying instantly. Hosking was posthumously awarded the Medal of Honor.

As U.S. intelligence determined, there were two distinct phases in North Vietnam’s training and dis-

One Deadly VC Sniper

These three amazing images capture a lethal 1964 encounter between South Vietnamese paratroopers and a deadly Vietcong sniper. The first photograph captures the instant a paratrooper is hit—his helmet has flown off, his head is snapped sideways, and his face contorted in shock. The sniper's first victim, he was killed instantly.



The next victim, depicted in the second photo, is being treated, also for a head wound, from which reportedly he died.



The sniper's third victim, lying in a trench, has had his head wound bandaged. He apparently survived. After hitting his third target, the Vietcong sniper broke off the contact and disappeared—having fired three times and made three head shots, attesting to the marksmanship of enemy snipers in Vietnam.

These images were provided by then-Sergeant First Class James G. Storter, an American adviser to the paratroop battalion. Storter's boss, the battalion's senior adviser, was Major H. Norman Schwarzkopf Jr., 27 years later the commander of American forces in Desert Storm.



The Da Nang Special Forces headquarters was named for Staff Sergeant Claude McBride, killed by a Vietcong sniper in 1963. (Courtesy of Shelby Stanton.)

patching of snipers to South Vietnam. Apparently the first major North Vietnamese Army (NVA) units deploying south did not have assigned snipers, causing Hanoi to set up a huge sniper training cycle, likely sometime in 1965. Two units consisting solely of snipers—the 700th NVA Battalion (containing five companies) and the C-100th Company—were organized, trained, and (as six separate companies) infiltrated through Laos into South Vietnam. Upon arrival, these sniper companies were further split into 18 platoons, with roughly two platoons assigned per NVA division. Each 27-man sniper platoon was further divided and parceled out to line battalions, putting perhaps three or four sniper teams in each battalion. According to captured documents, these NVA snipers operated in three-man cells or five-man squads.

With that accomplished, North Vietnam continued to produce snipers at a smaller but steady flow. These second-phase snipers trained concurrent to their infantry units' preparing for deployment to the south. In this 90-day sniper school, students fired at silhouette targets up to 1,000 meters, studied advanced camouflage techniques, and learned to stalk and select concealed firing positions. Interestingly, sniper students also learned how to employ booby traps and mines so that these could be used to delay pursuit and allow snipers to escape. When it was time to head south, these snipers rejoined their units.

Vietcong Female Snipers

From time to time, American troops in Vietnam thought female enemy snipers had fired on them. It was well known that the southern guerrillas, the Vietcong, included women political cadre and nurses and that North Vietnamese units occasionally employed women in supporting roles. But as combatants?

The well-reported use of female Russian snipers in World War II seemed to establish a precedent, but many GIs doubted that the enemy was actually training and fielding female snipers.

However, it's pretty well documented that this actually happened.

On 24 June 1966, according to eyewitnesses and the unit's staff journal, Private First Class Louis S. Santiago was shot dead by a pair of Vietcong female snipers near Cu Chi, South Vietnam. According to the official journal entry, the 25th Division soldier died from "gunshot wound[s] head and neck on search & destroy mission when fired on by two women snipers."

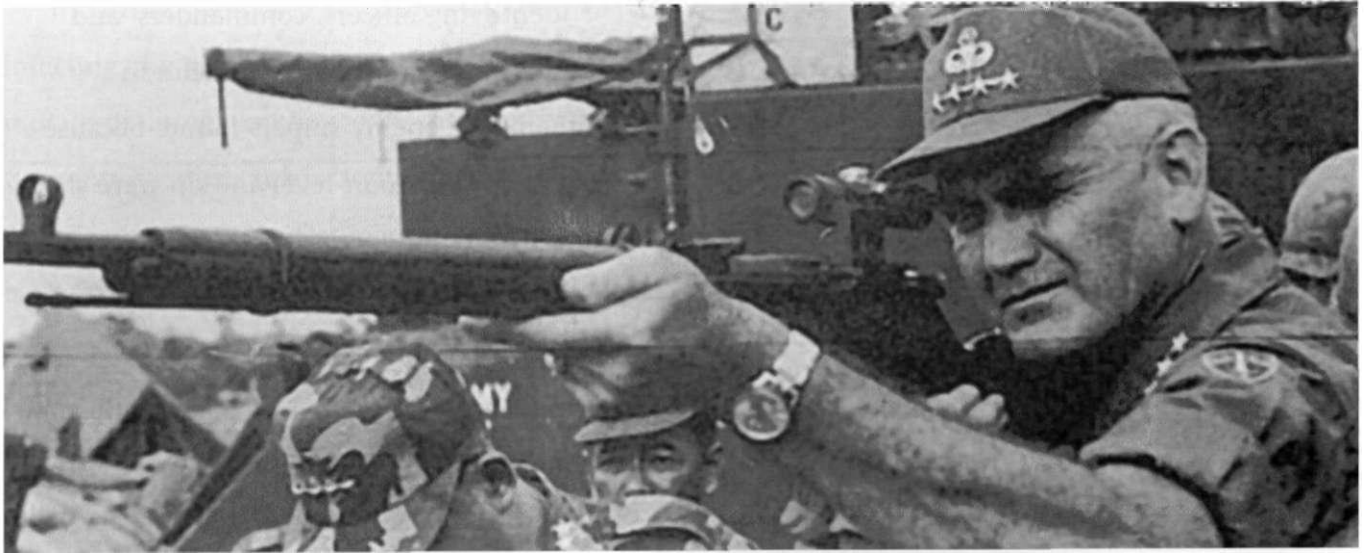
The North Vietnamese also confirmed the use of women. A Hanoi-published history of the 1968 Tet Offensive includes a short chapter, "A Girl with a Rifle," which tells of a Vietcong woman, Tran Thi Buoi, "a sharpshooter" who "was positioned on Hill 31 which dominated two enemy camps." She fired a "telescope sighted rifle," and on her first day missed one U.S. Marine but killed two others. "With eight rounds Buoi got six kills" on her second day, the account claims. By the third day heavy machine gun and artillery fire made her job more dangerous, but still, it was claimed, she continued shooting, killing a Marine who was atop a metal roof making repairs. That day, it's claimed, "eleven enemy troops succumbed," and she withdrew.

How many such female snipers existed? There's no way to know.



Though rarely encountered, enemy ranks did include some female snipers.

North Vietnamese snipers worked closely with the southern Vietcong, using them as guides and recon support while, in turn, the Northerners trained Vietcong snipers and armed them. By 1966, Russian Mosin-Nagant sniper rifles, designated the K-44 by the North Vietnamese, began turning up all across South Vietnam. That year a sizable cache of K-44s was captured by the Army's 173rd Airborne Brigade, indicating that a major effort was under way to recruit and instruct Vietcong guerrilla snipers. Accompanying each sniper rifle, U.S. intelligence officers discovered, was a Vietnamese language notice that "this long-range weapon is for use only by experts. Use to shoot unit commanders and American advisors."



The commander of U.S. forces, General William Westmoreland, examines a captured sniper rifle.



An Australian soldier with a captured K-44, actually a Russian Mosin-Nagant.



Captured by the 173rd Airborne Brigade, a K-44 sniper rifle, as it was known to the North Vietnamese. (West Point Museum.)



A 25th Infantry Division sniper, Specialist Fourth Class Guth, aboard a Huey for insertion near the Cambodian border.

Identifying officers, commanders, and advisors was not especially difficult in Vietnam, the enemy snipers found, because leaders from platoon-level and up were shadowed by a radio operator whose distinct whip antenna protruded from his rucksack. This was likely how, on 3 June 1967, Special Forces Master Sergeant Tom Sanchez, leading a reaction force to an ambush site, was singled out and shot dead with the only shot fired at his element.

Many enemy sniper engagements involved more than one shot because the jungle offered plentiful concealment and many escape routes, and reaction forces usually were on foot and slowed by thick foliage. Thus NVA snipers habitually fired up to five shots before displacing. For extreme-range shots, they sometimes fired tracer rounds to more easily correct their misses and clearly see how wind drift affected their bullets.

NVA snipers did not seem to play a prominent role in enemy attacks, but in the defense they often proved decisive, especially in pinning or delaying American units. Here the NVA five-man sniper squad allowed mutual support to cover each other's flanks and their withdrawal. Leapfrogging from one position to a fallback position, they could play this game for hours, allowing a major NVA unit to escape or to mass and prepare to attack the Americans. On 2 April 1970, the NVA 271st Regiment skillfully employed snipers to bloody a 25th Division platoon near the Cambodian border. The platoon leader, Second Lieutenant Ronald Kolb, was killed with a single shot. Then, running to the downed officer's side, his platoon sergeant, Staff Sergeant Melvin Kalili, too, was killed with one shot. Their parent unit, Company C, 2nd Battalion, 27th Infantry, found enemy snipers stalking and shooting from a number of directions. As a report explained:

"The men of Company C were effectively pinned down and had difficulty locating the source of the enemy fire. They remained pinned down by sniper fire for over six hours, and had extreme difficulty extracting their casualties."

Incurring significant casualties without inflicting any on the enemy had to have been a morale-draining experience. In a related tactic, Communist sniper teams sometimes shadowed American units through the jungle, hanging back far enough to avoid close combat. Perhaps every other day, they crept near enough to fire once and then disappear. At the end of a 60-day operation, that single sniper team would have killed or wounded the equivalent of a platoon. Growing attuned to this threat, U.S. units learned to leave a squad behind to ambush their

own back trail, a technique called “stay behind.”

Early in the war, NVA snipers often fired from trees, apparently to increase their fields of fire. In the war’s first major battle in November 1965 at landing zone X-Ray in the Ia Drang Valley, troopers of the 1st Air Cavalry Division encountered treetop snipers. One sniper killed an American company commander and could not be detected. Later, several NVA snipers were shot and killed, all of them in trees. “One NVA sniper fell from a tree, dead, immediately in front of one company commander’s foxhole,” a



Rocky, treacherous, honeycombed with caves, Nui Coto Mountain on the Cambodian border always teemed with enemy snipers.

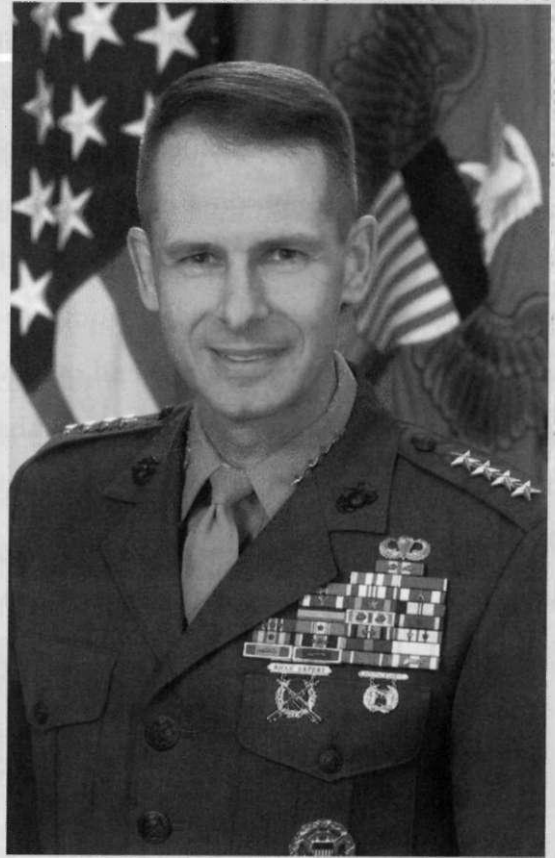
Lieutenant Pace's First Casualty

Chairman of the Joint Chiefs, USMC General Peter Pace kept a photo under the glass of his desk at the Pentagon, an image of 19-year-old Lance Corporal Guido Farinaro. It was there, he explained to an audience of West Point cadets, to remind him of the difficult responsibility of commanding troops in wartime.

It was 1968, the Tet Offensive, he explained, and as a new second lieutenant he commanded a rifle platoon in Golf Company, 5th Marines, 1st Marine Division. While they were patrolling near a Vietnamese village, an enemy sniper picked out Lance Corporal Farinaro, his bullet instantly killing the Bethpage, New York, native. "My immediate reaction was one of complete rage," General Pace recalled. He radioed for an artillery strike to pound the village. But before the shells began falling, he made eye contact with his platoon sergeant, Gunnery Sergeant Reed Zachary. "He just looked at me. And I knew I was wrong, and he was right, and I called off the artillery barrage."

When his platoon later swept through the village they found no sniper, just women and children. "I tell you this because I ask you to think through who you are—check your moral compass—as you get closer and closer to combat. The time to decide whether or not you will do what I almost did . . . is not when one of your soldiers gets shot. Because the waves of emotion that roll over you are so strong, that if you are not holding onto an anchor that you have already thought through, you can get swept away."

The lesson was not purely a moral one. On many occasions the Vietcong purposely sniped from populated villages, in hopes that American return fire would make enemies of the villagers, just as al-Qaeda insurgents in Iraq have similarly attempted in more recent years.



Chairman of the Joint Chiefs, USMC General Peter Pace, lost his first Marine in 1968 to an enemy sniper.

report noted, "and another riddled body fell and hung upside down from a tree only a few meters from a platoon's position." An hour later a third sniper was spotted sliding down a tree, and he, too, was killed.

Because trees proved too dangerous to abandon after taking a shot—and to remain in one was equally dangerous—I never heard of an enemy sniper using one after 1967. Still, they learned and adapted, modifying their tactics to fit the war's changing circumstances and would remain a threat throughout it.

THE MARINE M40 SNIPER RIFLE

Faced with a serious sniper threat, and confident that Marine snipers could inflict significant casualties, in 1966 Marine units in Vietnam did their best to acquire suitable rifles and scopes, the most readily available being those from competitive rifle teams. Thus, USMC snipers initially were armed with bolt-action Model 70 Winchester target rifles in .30-06 caliber, topped by 8x Unertl target scopes. One such sniper rifle had been fired at Camp Perry in 1953 by Staff Sergeant Don Smith to win the national championship.



Early in the war, USMC snipers used Winchester Model 70s, such as this one held by Lance Corporal Dalton Gunderson.

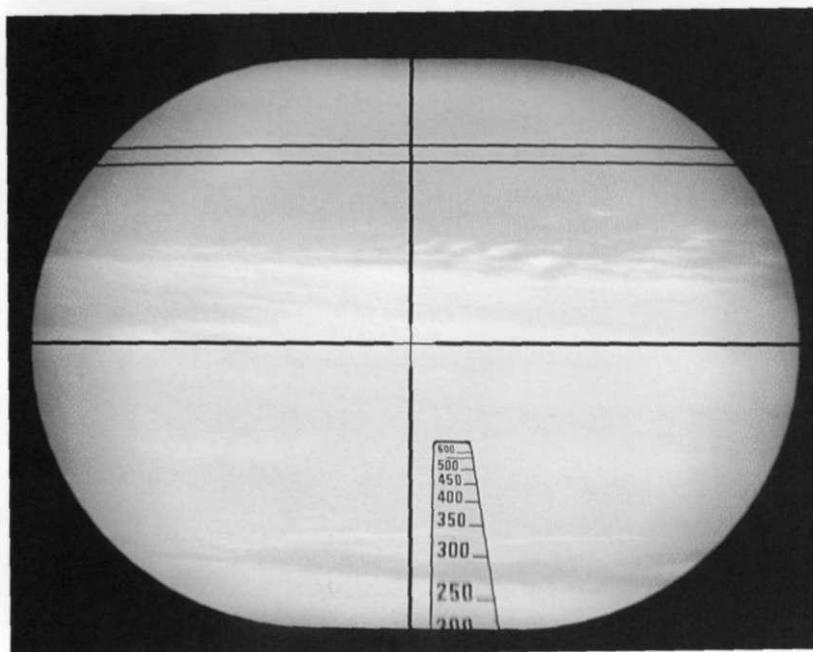
Though the Winchesters were accurate and reliable, they were wearing out, and as of 1964, Winchester had redesigned its Model 70, making the parts incompatible. Many serious shooters also thought the post-1964 Winchesters just didn't measure up. The Corps needed a new sniper rifle, it was decided.

Back at Quantico the search began for that new rifle, headed by Colonel Walter Walsh, who as a captain

in 1943 had instituted the Marine Scout-Sniper School at Camp Lejeune. His team selected the Remington Model 700 bolt action in 7.62 x 51mm NATO with a heavy barrel, identical to its commercial version except for a parkerized metal



The M40 was not free-floated, as this picture clearly discloses.



The Redfield Accu-Range reticle (shown here in its Widefield version). Zooming in and out until the two upper horizontal lines bracketed 18 inches on a target yielded a range on the lower scale.

its variable magnification to calculate distances. To employ it, the shooter simply zoomed in and out until the gap between two thin horizontal lines represented 18 inches on the target, about the distance from a man's chin to his belt. As the

finish, a dulled wooden stock, and epoxy-fiberglass bedding of the receiver. The Remington was not free-floated, its fore-end tip pressuring the barrel to dampen vibrations as one way to achieve consistent harmonics. In Marine Corps use, this version of the Model 700 was officially designated the M40.

Walsh's team also selected a new scope, the Redfield 3-9x with Accu-Range, which integrated the reticle with



This M40, serial number 221552, was used by Chuck Mawhinney to shoot 103 enemy soldiers. It's now displayed at the Marine Corps Museum.

shooter zoomed, a synchronized distance scale inside the scope slid back and forth to indicate the distance in yards. The sniper then applied proper holdover or -under, and fired. The Redfield scope was fast to use and reasonably accurate but only measured distances to a maximum of 600 yards.

The M40s with green-finished Redfield scopes reached Vietnam in the spring of 1967 and very quickly replaced other Marine sniper rifles. How accurate was the M40? My own Model 700 heavy-barrel, manufactured in the Vietnam era (serial number A6614829), is unmodified but for a rasped free-float, and fitted with a 3–9x Redfield Accu-Range scope. It has fired exceptionally well, producing 100-yard groups—fired off sandbags using Federal 168-grain Match ammo—measuring well under 1 inch, with the best so tiny—*0.269-inch*—that it rivals many custom-built rifles. Indeed, even firing M118 Special Ball ammo, the M40 proved more accurate than many of the shooters who fired it and helped break “the one-minute barrier”—the first U.S. sniper rifle that consistently fired groups of less than 1 inch at 100 yards.

Understandably, Marine snipers and their M40s scored many long-range hits and—where wind wasn't a problem and range could be calculated accurately—they took out enemy personnel at 1,000 or more yards. During the 1968 Battle of Hue, Corporal Jeff Clifford of the 1st Battalion, 1st Marines, scored a kill at a remarkable 1,400 yards with his M40, witnessed by two officers, which he humbly attributed to “luck.”

MARINE SNIPER TRAINING

Instead of the hodgepodge of battalion and regimental courses set up in the Korean War, which suffered from inconsistent instruction and often insufficient support, in Vietnam the Marine Corps

Carlos Hathcock, Marine Sniper

America's best-known sniper of the 20th century was USMC Gunnery Sergeant Carlos N. Hathcock II, whose combat achievements and continuing legacy place him among history's greatest sharpshooters and snipers.

Raised by his grandmother in rural Arkansas, as a young boy he harvested the woods for the family cook pot and could not afford to waste precious .22 caliber bullets—one shot had to mean one meal. As well, Carlos learned to remain perfectly still, keen to his surroundings, his senses so focused that he later called it “getting into my bubble.”

At age 17 he joined the Marine Corps and in 1960 was based in Hawaii, where this superb shooter was discovered by Lieutenant Edward “Jim” Land. Hathcock fired on Land's rifle team and also attended Land's short-lived Scout-Sniper School, the first Stateside Marine sniper course since World War II.

By 1965 Hathcock had made the Marine Corps Rifle Team and competed at Camp Perry, Ohio, in the

National Matches. Not only did he earn his Distinguished Rifle Badge there, but he also won the coveted Wimbledon Cup for the 1,000-yard match, making him America's long-range rifle champion.

A year later he was in Vietnam, initially serving as a military policeman. On his own, he took out an M14 rifle and racked up 14 “unofficial” kills. Then his old shooting mentor, now Captain Jim Land, recruited Hathcock to instruct at his new 1st Marine Division Scout-Sniper School.

Instructing, however, was not enough for Hathcock. Obtaining his favorite bolt-gun, a Winchester Model 70 in .30-06 with a Unertl 8x target scope and Lake City Match ammunition, he went hunting the enemy, at which he was one of the best, eventually being credited with 93 kills. “He just had this ability to totally integrate himself into the environment,” Captain Land recalled, “and he noticed *everything*. He had a total awareness of his surroundings.”

His sniping feats were legendary, reaching the level of myth, whether pinning an enemy company for several days or placing a shot perfectly through an enemy sniper's scope. His 2,500-yard, .50-caliber shot remained a world record for four decades. But



USMC Corporal Carlos Hathcock receives the Wimbledon Cup from NRA President Harlon Carter at Camp Perry, 1965. (Courtesy of the National Rifle Association.)

he was also a humble man, who admitted to me, "I've missed a whole bunch of times. That's why I carried so much ammo."

Like Chuck Mawhinney, Gunny Hathcock believed his efforts involved saving, not taking, lives. "If I don't get those bastards," he once said, "then they're going to kill a lot of these kids," a sentiment confirmed by Land, who said, "He was saving Marines; that's how he saw it."

Hathcock's second Vietnam tour in 1969 was cut short when a 500-pound mine detonated beneath the

armored carrier he was riding on. He went back into that inferno to rescue several Marines, incurring second- and third-degree burns on 40 percent of his body. Evacuated to the States, he underwent 13 skin graft operations leaving such deep scar tissue that rifle recoil sometimes left him bleeding and weakened.

Carlos Hathcock's greatest contribution, I believe, was working with Majors Jim Land and Dick Culver to set up the postwar USMC Scout-Sniper School at Quantico, so that for the first time in American history, the wartime sniping lessons learned at a great cost in blood would not be lost. That's where he was, doing what he loved, when physically it caught up with him, the burns and finally his debilitating multiple sclerosis. He was forced into retirement only 55 days short of a full 20 years of service.

During all his combat service, Carlos had not received a single valor decoration, only the Purple Heart. That was rectified in 1996 when the Marine Corps presented him the nation's third-highest decoration, the Silver Star, for rescuing seven men from that burning personnel carrier in 1969. He received many other belated honors: the Virginia Legislature issued a proclamation hailing his "conspicuous bravery, achievement, selflessness and patriotism." And many rifle ranges across the country have been named in his honor, including the sniping range at Camp Lejeune, North Carolina. Perhaps his greatest honor is the USMC's Carlos Hathcock Award, presented annually to the Marine who best promotes rifle marksmanship.

In February 1999, Carlos succumbed to multiple sclerosis. He was 57 years old.



Retired Gunnery Sergeant Carlos Hathcock receives the Silver Star from USMC Lieutenant General P.K. Van Riper. With him is his son, Staff Sergeant Carlos Hathcock Jr.

operated division-level sniper schools. The first one, under the 3rd Marine Division, was overseen by Captain Robert Russell and Gunnery Sergeant Marvin Lange, who'd earned his Distinguished Badge in 1959. Their course lasted only a couple of days, with graduates immediately dispatched to the field for on-the-job training. Eventually the 3rd Division school expanded to four weeks.

The 1st Marine Division, too, organized a sniper school, at the instigation of its commander, Major General Herman Nickerson Jr., who went to Okinawa to recruit a longtime competitive rifle-



A Marine artist's depiction of a sniper team early in the war. Note the Colt 3x scope on the M16.



Supported on a fallen tree, a Marine sniper takes aim with his Remington M40.

man and Distinguished Badge holder to head it, Lieutenant Edward “Jim” Land. “I want mine to be the best [school] in the Marine Corps,” Nickerson instructed him. “I want them killing VC and I don’t care how they do it—even if you have to go out and do it yourself.”

The general could not have found a better man. Six years earlier, in 1960, out of frustration that the Corps had no sniper training, Lieutenant Land had run his own two-week sniper

course in Hawaii, the first Stateside course since World War II. Reflecting that era’s lack of sniping resources, Land’s only reference was his own weathered copy of H.W. McBride’s World War I classic, *A Rifleman Went to War*.

When he organized his Vietnam school, Lieutenant Land brought aboard one of his



Hunkered down for a left-handed shot, 1st Marine Division sniper Randall Josey draws a bead on a Vietcong at more than 1,000 meters.

Hawaii course graduates, a young military police sergeant, Carlos Hathcock, who already had scored 14 “unofficial” kills on his own. Gunnery Sergeant James Wilson, who, like Hathcock and Land, was a Distinguished Badge recipient, headed Land’s instructor team.

While the Seabees were constructing ranges at the Marine base southwest of Da Nang on Hill 55, Lieutenant Land and his instructors were running actual sniper missions to assemble experiences. Equally,

though, these missions reflected Land’s warrior ethic: How could sniper instructors teach this craft to young Marines in wartime if they’d not actually done it themselves? That was quickly rectified with the sniper cadre engaging a number of Vietcong and North Vietnamese Army units, including a 1,125-yard, one-shot kill.

The Most Accomplished Marine Sniper

Among his friends and neighbors in eastern Oregon, U.S. Forest Service officer Chuck Mawhinney blended right in. After coming home from the Marine Corps in 1970, he didn't really talk much about his service. Then, in the late 1990s, several historians and researchers discovered something quite amazing about this quiet, easygoing man. "Chuck is such a low-key and nice guy that people couldn't believe that he was capable of this," a neighbor told the *Los Angeles Times*.

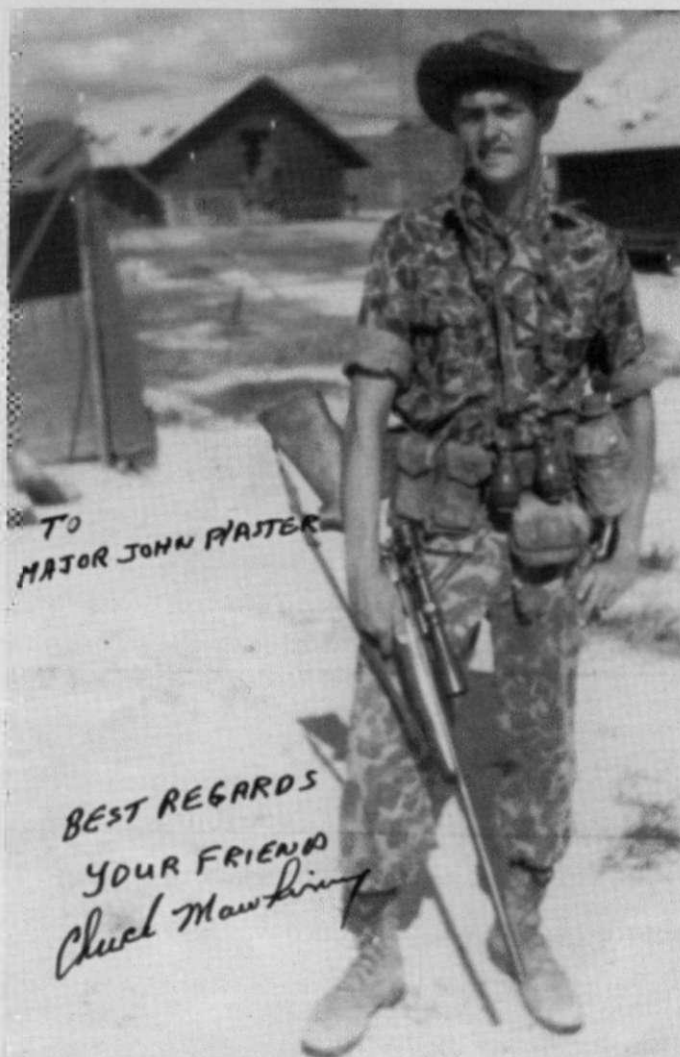
She was referring to the fact that her mild-mannered acquaintance was America's most accomplished Marine sniper. Not just for Vietnam, but for *any* war. Sergeant Charles Mawhinney had shot and killed 103 enemy personnel in 1968–69, with another 216 "probables," some at more than 1,100 yards. The only hint of such a background was a nick off his right ear, where an enemy bullet had clipped him.

Mawhinney's rural Oregon upbringing probably had a lot to do with his combat performance. Raised on a ranch, he grew up an avid hunter, trapper, and fisherman, but especially a fine rifle shot. While still a lad, he could shoot flies off a fencepost with his BB gun, so it was no surprise that he qualified as "expert" in Marine Corps Basic Training and was invited to attend scout-sniper training at Camp Pendleton, California.

Arriving in Vietnam, Mawhinney was assigned to the 3rd Battalion, 5th Marines. Operating out of An Hoa, 25 miles southwest of Da Nang, his unit roamed the surrounding hills and valleys looking for a fight and frequently found one. Rarely did Mawhinney's two-man sniper team operate independently, almost always in support of a company or platoon, although he might screen a flank or recon ahead of them.

"We were the company's eyes and ears," Mawhinney explained. His team often moved at night and stayed off trails and open areas to avoid booby traps and villagers who might betray their presence.

Perhaps his greatest engagement took place on 14 February 1969, known among 5th Marines snipers as the "St. Valentine's Day Massacre." That afternoon, while the company he was sup-



Sergeant Chuck Mawhinney, with 103 kills, is the most accomplished sniper in USMC history.

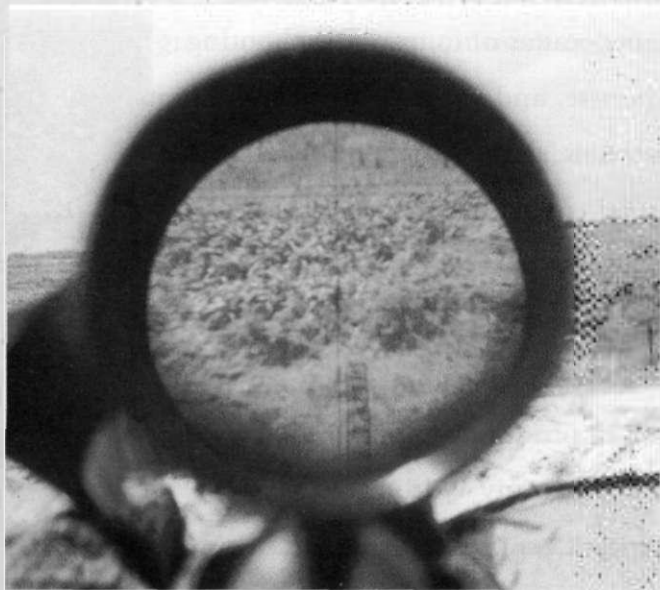
porting dug in, Mawhinney and his teammate crept forward to watch the nearby Thu Bon River. At dusk he mounted an AN/PVS-2 nightscope on an M14 and began surveilling the 100-meter-wide river. Soon after dark, an enemy scout waded across the river, almost stepped on the Marine sniper team, and then went back. Momentarily the scout reappeared, leading a long file of enemy soldiers, wading directly toward Mawhinney, who held his fire.

"As soon as the first one came up the bank on our side," he recalled, "I went to work. I got 16 rounds off that night, as fast as I could fire the weapon, and every one was a head shot." Exactly like World War I rifleman Alvin York, he shot back to front so the approaching enemy could not appreciate his fire's deadliness, killing one enemy for each shot. Witnessed only by his spotter, these kills would not count toward his final tally. In fact, Mawhinney achieved 30 percent of his kills at night, exploiting night vision capability to the fullest.

"Normally I would shoot and run," Mawhinney explained. "But if I had them at a distance, I wasn't worried." That's what happened in another engagement that Mawhinney compared to shooting prairie dogs. When a Marine company came under fire, he and his partner trotted to a flank, where they could see enemy riflemen popping out of spider holes, firing, and then dropping down. He told authors Craig Roberts and Charles Sasser, after waiting for one to reappear, "I popped him. The lid slammed shut. To his left, another lid lifted. Another prairie dog. I popped him, too." That day he was credited with bagging three such "prairie dogs," each killed by a single shot to the head or neck.



After 101 "kills," Mawhinney was meritoriously promoted, his insignia pinned on by a three-star Marine general.



Mawhinney snapped this amazing image through his scope of a North Vietnamese soldier a moment before he shot him.

By April 1969, Mawhinney had an astounding 101 confirmed kills of North Vietnamese and Vietcong soldiers, in recognition of which he was meritoriously promoted from private to lance corporal. By the time he went home, he had served a full 13-month tour, plus two six-month voluntary extensions because, he believed, his shooting could save more American lives.

Sergeant Mawhinney's Remington M40 sniper rifle, serial number 221552, is displayed today at the Marine Corps Museum in tribute to this most accomplished sniper in Marine Corps history.

With these fresh experiences, their decades of long-range shooting expertise, and Land's historical materials, they launched their first formal course in November 1966. It lasted just three days—a “blitz,” it was called—to get snipers out in the field as quickly as possible. “We plan to produce more and more teams,” Gunny Wilson told a Marine Corps newspaper, “that can live and work together in harmony, move with stealth, and kill the enemy with single shots.”



While his spotter, Lance Corporal D. Cronkite, observes, Marine sniper R.E. Bryant prepares to engage an enemy soldier.



Lance Corporals Joseph Ortiz (left) and Robert Moore, snipers with the 3rd Marine Division, on patrol in 1968.

Gradually, Lieutenant Land expanded the sniper course to two weeks and could take great satisfaction in the results. Within three months, his first 17 sniper graduates accounted for more enemy killed in action (KIA) than any Marine battalion in South Vietnam.

Stateside, the Marine Corps had been following sniping developments in Southeast Asia, and the following year, tapping into these experiences, it opened a four-week sniper school at Camp Pendleton, California, instructed by returning sniper veterans. In turn, these vets groomed more instructors to take over the 1st and 3rd Division Sniper Schools in Vietnam.

Then, in 1968, Headquarters, U.S. Marine Corps, made formal what had been happening ad hoc in Vietnam, authorizing a 39-man sniper platoon in each Marine regiment, plus a sniper platoon in each division's Force Recon battalion.

The Marine sniper training system produced hundreds of effective snipers—far too many to mention here—who cost the enemy dearly. One of the greatest had to be Master Sergeant Eric England, a 3rd Marine Division sniper whose kill tally rivaled that of Carlos Hathcock. A Distinguished Rifle Badge recipient, England twice fired on the U.S. Olympic Rifle Team, with phenomenal scores that remain unbroken to this day. But more importantly, Jim Land thought, Master Sergeant England passed his shooting knowledge along to many young Marine riflemen and snipers.

THE ARMY'S XM-21 SNIPER WEAPON SYSTEM

Like the Marine Corps, Army snipers in Vietnam initially were armed with a variety of older, even obsolete, weapons, running the gamut from World War II-era 1903A4 Springfields to Korean War M1Cs and Ds and even a few examples of the British Short Magazine Lee-Enfield (SMLE) No. 4, Mk. I (T). For lack of anything better, some units mounted 3x Colt scopes or commercial scopes on ordinary M16s.

Then, in 1967 the Army shipped a variety of sniper rifles and scopes to Vietnam for testing, resulting in the selection of an entirely new sniping system, the XM-21, based on the M14 rifle. Since its official adoption in 1957, the Army Rifle Team had been firing the M14 in competitions, which led to tweakings and tunings to squeeze more accuracy out of it. Unlike earlier M1Cs and Ds, this National Match M14 was glass-bedded—that is, the stock's receiver area contained a layer of epoxy-fiberglass so the mating surfaces conformed perfectly to each other, tightly anchoring the action to the stock. Though the stock appeared ordinary, it had been heated to 300 degrees to vaporize any internal



A South Vietnamese Ranger sniper zeroes his M1D sniper rifle. (Courtesy of Robert Bruce Military Photos.)



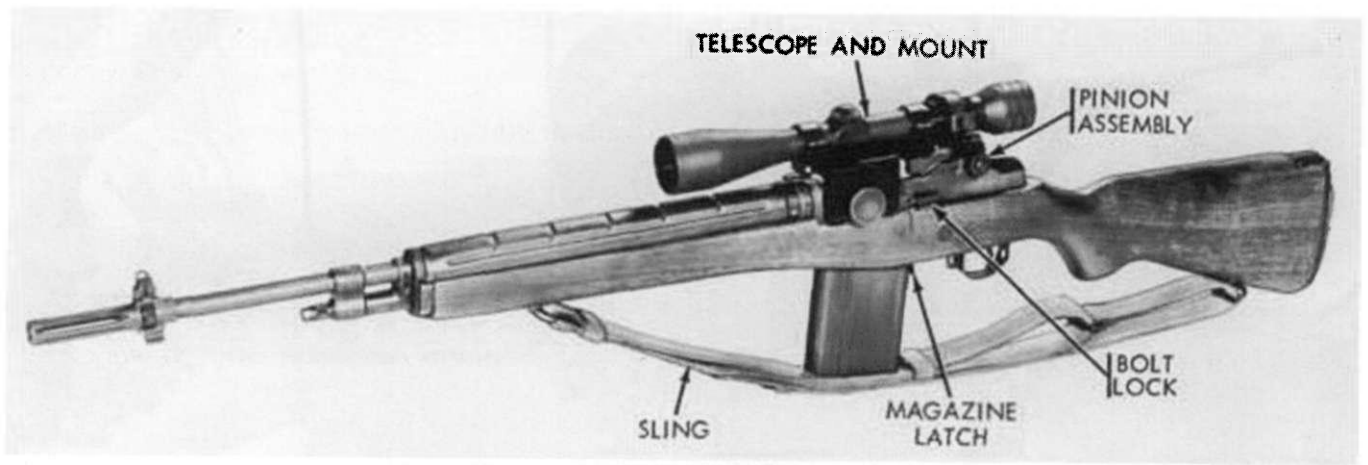
Special Forces Major David Shepherd Jr. (right) carries a British SMLE No. 4 Mk 1 (T) sniper rifle, one of many sniper weapons found in Vietnam. (Courtesy of Shelby Stanton.)



Mounting an M84 scope, an early sniping version of the M14 National Match rifle. (Courtesy of Shelby Stanton.)

dampness and then placed in a vacuum with pressurized resins, which were sucked into the wooden fibers. This made the stock impervious to dampness and warping. It was fitted with a highly accurate National Match barrel, its working metal surfaces were honed or trued, and its two-stage trigger was tuned for crisp release. The Army's Fort Benning-based Marksmanship Training Unit mated this National Match M14 with a new scope/mount developed by the Army's Limited War Laboratory as the XM-21 Sniper Weapon System.

We have to call it "scope/mount" because this new optic—the ART, or Adjustable Ranging Telescope—had as much to do with the mount as the scope. The brainchild of then-Lieutenant Jim Leatherwood, the ART System placed a conventional Redfield 3–9x Accu-Range Scope in a special cradle mount synched to the scope's zoom magnification ring. Looking through his scope, the shooter zoomed magnification in and out, much like the Marine Accu-Range feature, until the distance between two stadia lines represented 30 inches on the target, or approximately the top of an enemy's head to his waist. Unlike the Marine scope's zoom ring, the ART's ring was elliptically



A Vietnam-era XM-21, as found in TC-23-14, *Sniper Training and Employment*.



The key to the XM-21's accuracy was the cradle mount–zoom ring design that automatically adjusted for distances.

shaped; as the sniper rotated the ring to make the stadia lines fit 30 inches on his target, that cam ever so slightly raised or lowered the entire scope in its cradle mount, automatically compensating the scope for that distance. As quickly as those lines represented 30 inches, the sniper could aim dead-on and fire instead of holding over. It worked because the cam's ellipse was carefully gauged to parallel the M118 Special Ball round's trajectory.

The ART scope was fairly accurate and fast, but it was also imperfect. Its greatest shortcoming was that its automatic range compensation was synched to a certain magnification. That is, when a shooter employed maximum 9x magnification, he was dead-on only at 900 yards; if he wanted to use 9x at 600 yards, the elliptical cam now put his shot much too high. True, he could disconnect the cam, but then he'd have an ordinary scope and have to compensate by imprecisely holding over his target.

Less critical, the scope's eye relief—the distance between the shooter's eye and the ocular (rear) lens—could not be adjusted because the scope had to fit exactly into its cam and mount to work.



The Army M21 System, shown here with an ART-II scope.

Thus, a sniper might have to adopt a somewhat unnatural cheekweld for proper eye relief. Another issue, one I often encountered with XM-21-armed sniper students, was difficulty zeroing the rifle. Since the mount and the scope both had elevation and windage adjustments, students frequently ran out of adjustments in one or the other before they achieved zero. Then an instructor would have to re-center both the mount and the scope and restart the tedious zeroing process.

Still, when fired with M118 Special Ball ammunition, the XM-21 shot well and put down many an enemy soldier. My recollection is that our XM-21s fired about 2 inches at 100 yards (2 minutes of angle), and sometimes a bit better, which in that era was excellent for a semiautomatic rifle.

Conversions of M14 National Match rifles to the XM-21 were accomplished at Rock Island Arsenal, with more than 1,400 shipped to Vietnam. The first XM-21s arrived in late 1968, just as the Army instituted its first formal sniper-training program there.

U.S. ARMY SNIPER TRAINING

About the same time that the Marine Corps inaugurated its sniping in Vietnam, in June 1966, some U.S. Army units were doing likewise. Lieutenant Colonel Truman Boudinot on the 25th

Infantry Division staff set up his division's sniper selection and training. Armed with scoped M14 rifles, these teams were "particularly useful in harassing Vietcong movements, eliminating their Vietcong counterparts, and adding extra protection around the base camp perimeter," the division newspaper reported.

By mid-1967, Boudinot's effort had grown into a sniper training school, with equal emphasis on the scouting role. This weeklong course, overseen by Lieutenant Don Stamper, trained 25th Division soldiers to be "accurate, long-range snipers" who fired "accurized" M14s or scoped M16s.

The 1st Air Cavalry Division also instituted an early divisional sniper school in Vietnam. Set up at Bong Song, these Sky Soldiers fired the standard M16 fitted with a Colt 3x scope, not a true long-range optic, which limited their range and function somewhat, perhaps akin to Designated Marksmen.

In the Mekong Delta, where enemy personnel frequently were spotted across vast wetlands and paddies, unit commanders begged for sniper weapons. "Our M16s just didn't have the range," recalled Peder Lund, a 9th Infantry Division company commander. "The best we could do in 1967 was scrounge some 'E-model' M14s with bipods, but what we really needed was scoped sniper rifles."

Responding to such frustrations and lost opportunities, the next year, 1968, brought the greatest breakthrough in modern U.S. Army sniper training, initiated by the 9th Division commander, Major General Julian J. Ewell. A man of insight and a true warrior—he'd commanded a 101st Airborne Division battalion at the 1944 Siege of Bastogne—General Ewell valued the sniper's role and understood the need for expert trainers from the Army's Marksmanship Training Unit (AMTU), the Fort Benning receptacle of shooting expertise created in 1956 when the Army restored its competitive shooting program. Under General Ewell's sponsorship, an AMTU instructor team was dispatched to Vietnam to set up and operate a newly created 9th Infantry Division Sniper School.

This nine-man AMTU instructor team was led by Major Willis Powell, a longtime competitive rifleman and former NCO who'd earned his Distinguished Badge in 1954, and included some of the U.S. Army's finest long-range riflemen, including Master Sergeant Alfred Falcon, who wore the Distinguished Rifle Badge and the President's Hundred tab.

The AMTU team's arrival coincided with adoption of the M14-based XM-21 System with ART Scope, which became the weapon instructed at the 9th Division School.

Based at the Bear Cat Army Airfield, the school's curriculum included stalking, range estimation, and camouflage—the full gamut of sniping subjects—with students firing to 900 yards, the maximum range of the ART scope. The first 30-man class graduated in November 1968, with 72 trained snipers



A graduate of the 1st Air Cavalry Division Sniper School, Sergeant Dennis Henzi. Note the 3x Colt scope on his M16.



Sniper students on the firing line at the 9th Infantry Division Sniper School, 1968.

fielded by Christmas 1968, which meant six snipers for each battalion and four per brigade. To his disappointment, however, General Ewell did not see anywhere near the results he had expected. Was it all a wasted effort?

General Ewell discovered that his new corps of snipers was being misassigned as everything from gate guards to ordinary infantrymen and “most company commanders could not care less.” He made them care.

The War's Most Accomplished Sniper

Though relatively unknown, the most highly decorated and most accomplished American sniper of the Vietnam War was Staff Sergeant Adelbert F. Waldron of the U.S. Army's 9th Infantry Division.

In addition to being credited with 109 enemy kills—the highest count for any American sniper in any war—Staff Sergeant Waldron also was *twice* awarded the Distinguished Service Cross, second only to the Medal of Honor, plus the Silver Star, several Bronze Stars, and the Purple Heart.

Nicknamed “Daniel Boone” by his fellow snipers to recognize his great fieldcraft, Waldron also was a phenomenal shot, achieving incredible long-distance hits. Lieutenant General Julian J. Ewell, Waldron's 9th Infantry Division commander, recalled:

“One afternoon he was riding along the Mekong River on a Tango boat when an enemy sniper on shore pecked away at the boat. While everyone else on board strained to find the antagonist, who was firing from the shoreline over 900 meters away, Sergeant Waldron took up his sniper rifle and picked off the Viet Cong from the top of a coconut tree with one shot (this from a moving platform). Such was the capability of our best sniper.”

The terrain in Waldron's area of operations especially suited sniping, with the Mekong Delta's rice paddies stretching for hundreds, even thousands, of yards, an ideal setting for long-range spotting and shooting. Equally, though, it was Waldron's exploitation of the night—employing an AN/PVS-2 night vision device and a Sionics suppressor on his M21 Sniper System—that contributed to his great effectiveness. Many GIs in Vietnam thought the night belonged to the enemy, but in the Mekong Delta darkness belonged to “Bert” Waldron. On the night of 3 February 1969, for instance, a staff journal noted:

“[F]ive Viet Cong moved from the woodline to the edge of the rice paddy and the first Viet Cong in the group was taken under fire . . . resulting in one Viet Cong killed. Immediately the other Viet Cong formed a huddle around the fallen body, apparently not quite sure what had taken place. Sergeant Waldron continued engaging the Viet Cong one by one until a total of five Viet Cong were killed.”



Staff Sergeant Adelbert “Bert” Waldron, the Vietnam War's most accomplished sniper, operated in the Mekong Delta.

Time and again, he intercepted Vietcong in the dead of night, engaging small patrols and single Vietcong who'd mistakenly thought they could not be seen. On the night of 25 January 1969, Waldron shot seven enemy soldiers at an average distance of 350 meters—*firing only seven rounds*. In the darkness of 22 January 1969, he was credited with another 11 kills. On 4 February 1969 he killed another nine enemy, again using a Starlight scope and suppressed XM-21. Waldron was a graduate of the 9th Division's first sniper class, and General Ewell thought him the division's finest sniper.

A private man, Waldron quietly retired from the Army and, to the best of my knowledge, has never spoken publicly about his wartime service.

General Ewell ordered that snipers be assigned at battalion level, "and I held the battalion commanders responsible" for their proper employment. "Once the snipers began to get personal attention and could handpick their assignments and fit their talents to the mission, the results were extraordinary." In April 1969, alone, General Ewell's 72 snipers achieved 346 confirmed kills.

"The most effective single program we had was the sniper program," Ewell later wrote with justifiable pride. "This took a whole year to get off the ground from scratch, but we ended up with 80 snipers who would kill (or capture) from 200 to 300 enemy per month."

The 9th Division Sniper School and its AMTU instructors also became the nucleus for Army sniper training throughout South Vietnam, instructing students and cadre from six U.S. divisions, who went on to create more schools. When the 9th Division began to withdraw from Vietnam in 1969, the school's cadre transferred to the 25th Infantry Division, where Master Sergeant Emil Heugatter established a school at Cu Chi.

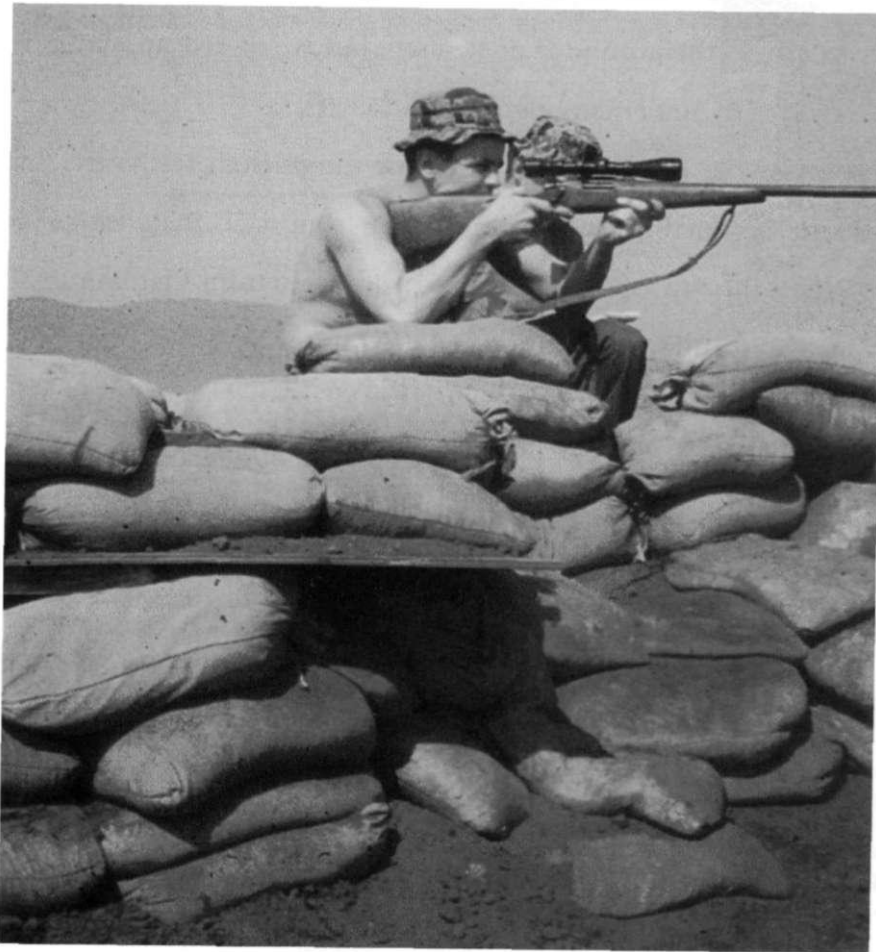
Meanwhile, the 23rd Americal Division organized a three-week sniper school headed by Captain Virgil Umphenour and later Major Lones Wigger Jr., a Distinguished Badge holder and Olympic-level competitor. Major John Foster and Master Sergeant Ray Combs, a Distinguished Badge recipient who later retired as the AMTU sergeant major, ran the 101st Airborne Division's sniper school. Like the original 9th Division school, all these courses sent their graduates back to their units with new XM-21s.

Having rotated from Vietnam to Fort Benning and the AMTU, Major Powell founded a sniper instructor course there and also wrote the U.S. military's first-ever sniper manual, Training Circular 23-14, *Sniper Training and Employment*. Never before in the history of the U.S. Army had sniping advanced so far in so short a period.

SPECIAL FORCES SNIPING

Special Forces had no slots for snipers. Still, when the situation or mission required it, some Green Berets occasionally served as snipers. Many already were proficient long-range shooters and required no additional training, but Special Forces occasionally sent its men and even Montagnard tribesmen to the 9th or 25th Division schools.

The top-secret MACV Studies and Observations Group (SOG), responsible for covert missions in North Vietnam and along the Ho Chi Minh Trail in Laos and Cambodia, had quite an armory that included every conceivable kind of weapon, including sniper rifles. Our arms room at FOB-2 at Kontum, where I served, for instance, included scoped Remington 700s (*commercial models identical to the Marine M40s*) and XM-21 Systems. Recon team leaders were authorized to use the weapons they thought most suitable for their operations and varied them from one mission to the next.



When there was a need for precision fire, some team leaders simply mounted scopes on team members' CAR-15s, while other team leaders drew sniper rifles. SOG even published its own special sniper "calling cards" to be left along enemy trails in Laos and Cambodia to psych-out the NVA.

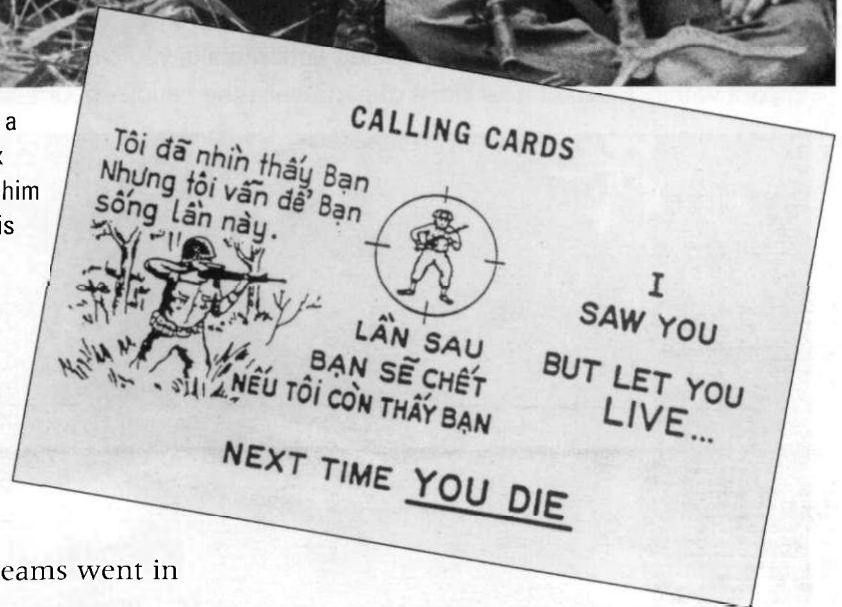
Rarely, however, were snipers used in cross-border operations along the Ho Chi Minh Trail highway system, since SOG's priority was to gather intelligence and surveil enemy activities. One shot would have compromised a team's presence and drawn hundreds of enemy security personnel, endangering both the mis-

Sergeant Phil Brown, a SOG man on Recon Team New York, fires a Remington 700 sniper rifle, identical to the USMC M40.



Above: SOG Sergeant William Gabbard (left) put a commercial scope atop his CAR-15 and a Colt 3x scope on his point man's weapon (center). With him is Recon Team Georgia teammate Sergeant Cletis Sinyard (right).

Right: SOG designed this sniper "calling card" and left copies along enemy trails in Laos and Cambodia.



sion and the men. Late in the war,

however, when reinforced SOG recon teams went in

heavily armed to block enemy highways from hilltop bastions, they brought

along sniper rifles and racked up long-range kills. Sergeant Kevin Smith, while manning a roadblock with Recon Team North Carolina, for instance, made a 1,000-yard shot across the north end of the Ashau Valley.

The First “Flattop” AR

It’s generally believed that the first “flattop” versions of the AR-15/M16 did not appear until the late 1980s or early ‘90s, evolving into today’s M4 Carbine and various match-grade 5.56mm long-range rifles. Developed to accommodate an assortment of optics, these flattops offer shooters a significant technical advantage.

While it’s clear that a scope mounted atop an AR handle significantly raises the shooter’s eye and cheek above the buttstock, making an effective cheekweld impossible, this great height difference between the optic and the bore axis also affects the bullet’s trajectory coincidental to the shooter’s line of sight.

To understand this effect, notice how little you must move a flashlight to follow your eyes when holding it close to your head versus the dramatic shifts if it’s held at your waist. My friend Dave Lauck calculated how this affected bullet path for a .223, 69-grain Sierra Matchking bullet when fired by a handle mount versus a flattop AR-15.

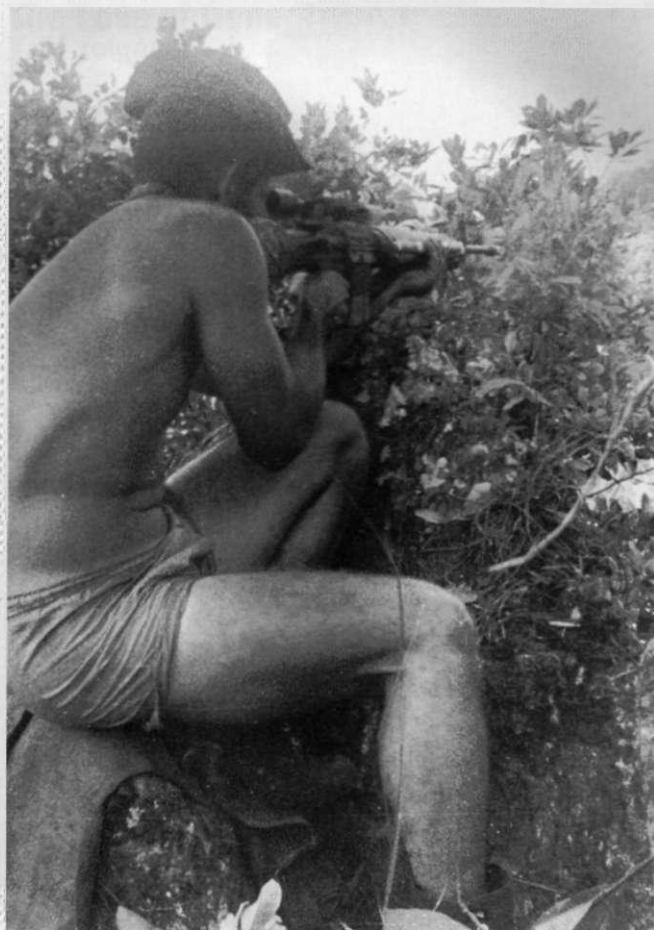
AR-15 BULLET PATH COMPARISON

Distance (in yards)	Handle Mount (in inches)	Flat Mount (in inches)
100	+3.0	+1.0
150	+4.9	+0.9
200	+5.6	+0.4

In a sense, by placing the optic closer to the bore axis, a shooter better exploits the bullet’s flat trajectory. Put another way: with a properly zeroed flattop optic, you can aim dead-on from the muzzle to 200 yards, and impact within 1 inch of your point of aim, while the handle-mount version varies by almost 6 inches!



Its distinctive handle/sight removed and an M84 scope mounted, this SOG M16 may have been the first “flattop.”



Atop SOG's top-secret "Leghorn" outpost, Sergeant First Class J.D. Bath takes aim with his "flattop" M16.

Actually, this bore/optic coincidence problem was recognized many years ago—in 1966 by a Special Forces armorer assigned to MACV-SOG (the Studies and Observations Group), the Vietnam War's highly classified covert operations unit. Unconcerned about accountability or seeking approval—*none of our weapons was accountable*—the unidentified armorer removed an M16's handle, milled it down, and then tapped it and fitted it with a proper mount for a 4x, M84 sniperscope. He must have understood a flattop's ballistic advantage, because he much more easily could have acquired a simple scope base and rings to fit the handle.

Special Forces Sergeant First Class J.D. Bath took this prototype M16 flattop sniper rifle along when his SOG recon team occupied a Laotian mountaintop overlooking the Ho Chi Minh Trail highway system. From that mountain peak he could see 30 or 40 miles, but any potential targets were so far away—virtually miles—that he had not a single engagement.

What became of that innovative rifle, decades ahead of its time—apparently the first flattop ever made—neither J.D. nor I ever learned.

THE STARLIGHT NIGHT VISION SCOPE

Infrared night viewing systems, a product of World War II, always had suffered from one serious drawback: an enemy with an IR viewer could see the infrared spotlight's beam as clearly as white light, compromising its presence. There had to be a better way.

The solution came from an entirely new night-viewing technology, the cascade image tube, developed by German scientists in the closing days of World War II. Unlike IR devices, the cascade tube required no exterior light source because it intensified tiny amounts of available light from the stars and the moon to yield a visible image. This technology was brought to the United States, where the Defense Department contracted with RCA to continue its development. In 1958 the first working cascade imaging device was perfected and, for the first time, a night scope was "passive," meaning it

required no light source and thus was not detectable by an enemy.

That prototype became the revolutionary AN/PVS-2 “Starlight” Night Vision Scope, which would be widely distributed

in Vietnam. This 4x scope, weighing 6 pounds, boosted ambient light by a factor of about 25,000 and came with mounts for the M14 and M16 rifles. Although it was zeroed at 150 meters and its illuminated reticle had holdover lines for 200, 300, 400, 450, and 500 meters, Army manuals did not claim a specific maximum range because that varied by the available ambient light and how well a target contrasted against its backdrop. With a full moon and excellent contrast, a shooter probably could score hits to about 300 meters; with no moon and a darkly clothed figure standing among dark bushes, the range fell to perhaps 100 meters. These ranges could be boosted, of course, by bathing the area in non-visible IR light, if that was available.

Despite its impressive capabilities, few GIs used the Starlight Scope during field operations, and for a very practical reason. In daylight it was totally useless on an M16, requiring the



A U.S. Army soldier with the revolutionary PVS-2 Starlight scope.

shooter to remove it to employ his iron sights. But that night he couldn't simply reattach the Starlight Scope and fire accurately because its slightest shift in the M16's aluminum

handle mount—even a tiny torque variance on its connecting nut—would throw it off zero. Since daily rezeroing was all but impossible in the field, most units that employed Starlight Scopes used them only for observation, or left them at base camps where they were employed for perimeter defense, with the best accuracy resulting when the scope was left on a dedicated night-use-only M16.

This was not the case for some M14s, however. Unlike the M16, the mount on the M14 did not block the iron sights; thus Marine sniper Chuck Mawhinney—who scored a third of his kills at night—used his iron sights to realign his Starlight Scope. To do this, at dusk Mawhinney remounted the Starlight and precisely aimed his iron sights at a distant object; then, placing a smoked-glass filter on the PVS-2's forward lens (to allow him to look through it while still daylight), he gently reset its windage and elevation

The Loss of General Bond

The highest-ranking American officer to die in Vietnam ground combat was Brigadier General William Ross Bond, commander of the Army's 199th Light Infantry Brigade. On 1 April 1970, his helicopter descended into a landing zone 70 miles northwest of Saigon, where his troops already had an operation under way.

A paratrooper and Ranger, during World War II General Bond had parachuted into Sicily with the 82nd Airborne Division and then volunteered for Darby's Rangers and fought at Anzio, where German forces captured him. In 1945 he escaped from a POW camp, made his way eastward, and joined the Red Army as it drove into Germany.

Marked for high command, in the 1950s he was a military planner on the White House staff and later a member of the UN Truce Supervision Team in Korea.

In Vietnam, General Bond had a reputation for putting himself amid his soldiers, and on the day he died, he was meeting a patrol that had been in contact with the enemy. Walking from his helicopter, he was shot once, in the chest, by a hidden enemy sniper, and died en route to a medevac hospital.

His loss was tragic, such great experience and potential taken away by a single bullet. But what's equally noteworthy—in a very tragic way—is the incredible coincidence. You see, his wife, Ellery Sedgwick Bond, was the great-granddaughter of a famous Civil War officer, General John Sedgwick. This poor woman had lost her great-grandfather and now her husband to snipers.



Brigadier General William Bond, the only U.S. general killed in ground action, was shot by a North Vietnamese sniper.

to coincide with the exact spot where his iron sights were aimed. In essence, he bore-sighted his Starlight to the iron sights. "It worked slick," he reports.

The mount on the Army's XM-21 System accommodated the PVS-2, allowing a quick switch from an ART day scope to a PVS-2 night scope so that snipers could apply their skills equally at night. Lieutenant Colonel Douglas Smith, a battalion commander in the 9th Infantry Division, found this proficiency boosted morale among supported infantrymen:



A Starlight scope in the field, here used by a Marine sniper near Da Nang, 1967.

"[T]his gives them a degree of security that they know the sniper is awake, they know he's looking through the Starlight, they know he's near them if anybody attempts to approach their position, they've got a good solid killer—a night killer—lying there right next to them doing a tremendous job."

In the 23rd Americal Division, this balance in day and night sniping is evident in the statistics (see below), with roughly half the engagements taking place in darkness. The average range of daytime engagements was 443 meters, while night firing was roughly half that distance, 270 meters.

SNIPER ENGAGEMENTS OVER 10 DAYS, MAY 1970

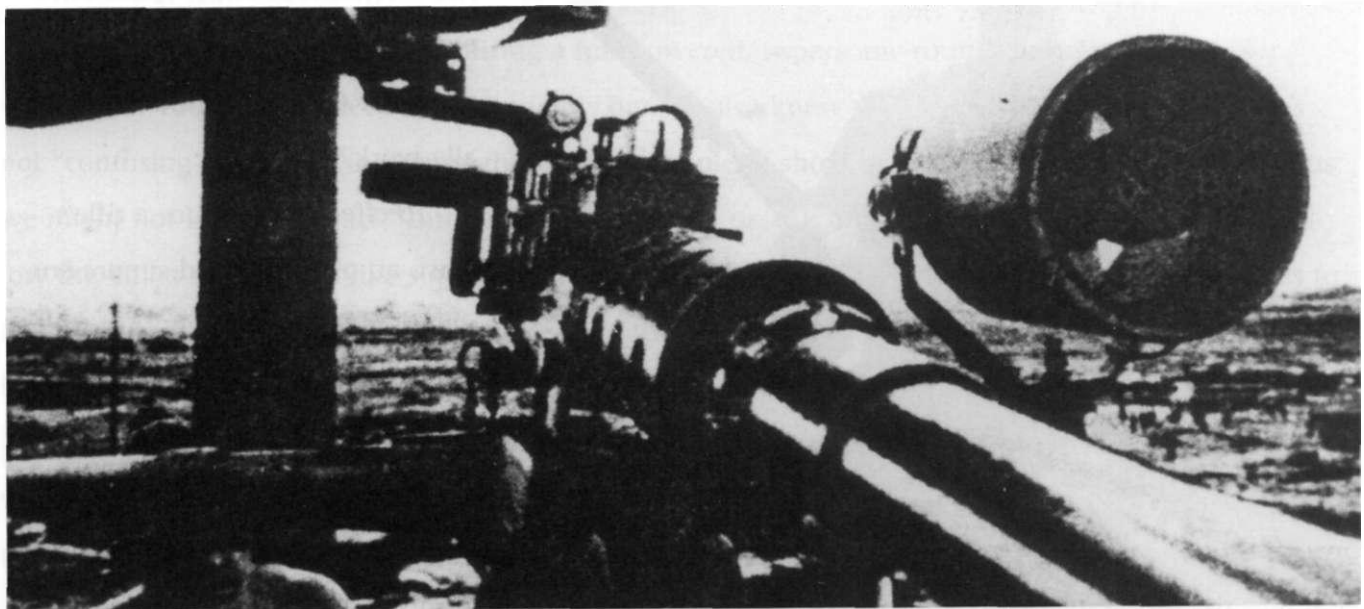
23rd Americal Division Snipers

Optical Sight	Engagements	Shots Fired	Enemy KIA	Enemy WIA
Night—Starlight	5	9	3	2
Day—ART Scope	7	14	7	0

Some especially impressive night sniping was achieved by the 6th Battalion, 31st Infantry when its snipers combined efforts with the U.S. Navy's Riverine Force. Lying atop blacked-out "Tango" boats (converted World War II landing craft), PVS-2 equipped snipers scanned the Mekong River's banks



Marines zero Starlight scopes on the perimeter at Khe Sanh, 1968.



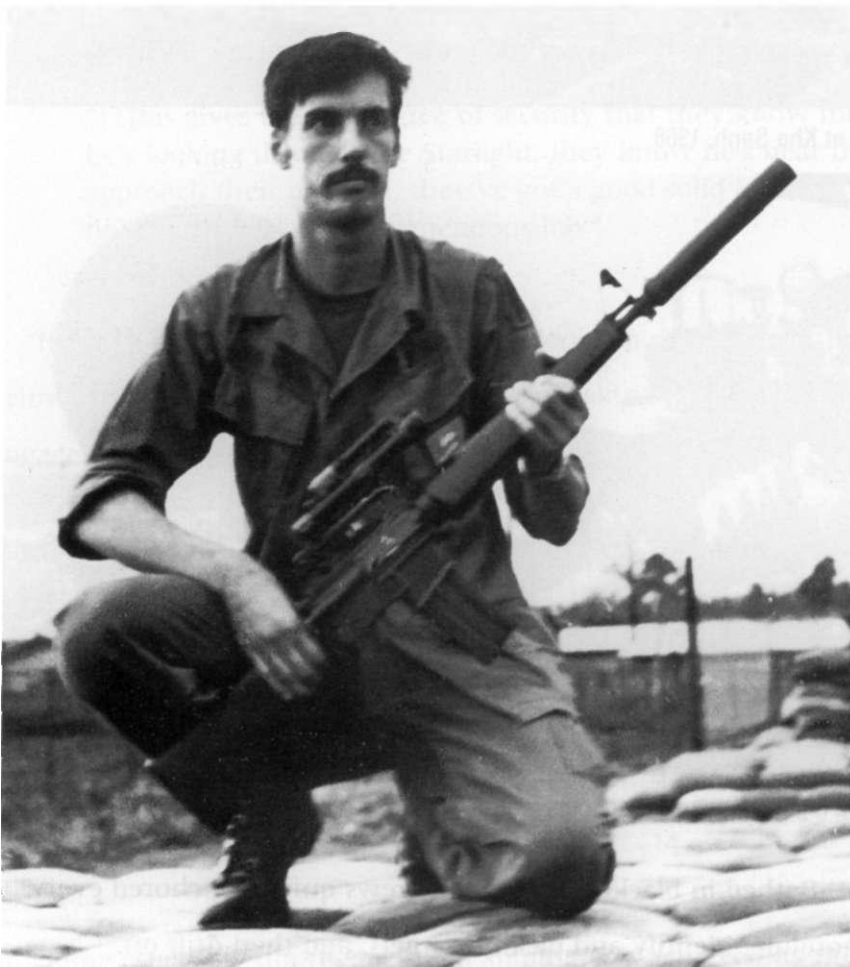
This .50-caliber machine gun, fitted with a TVS-2 night scope, allowed long-range shots in darkness.

while drifting noiselessly in the current. Bathed in blackness, the boat crews quietly anchored every half hour so snipers could study the shoreline, identify and pick off targets, and then drift on. Employing this technique, night snipers of the 6th Battalion killed 39 enemy personnel in April 1969, averaging six rounds per kill at a distance of 148 meters.

SUPPRESSORS GO TO WAR



The Sionics Silent Sniper Carbine was extremely quiet but only fired a 9mm round.



This suppressed M16, held by Specialist Fifth Class Craig Schmidt, may be the same weapon the author tested with Franklin “Doug” Miller.

Prior to the Vietnam War, quite a variety of suppressed pistols and submachine guns existed, all of which fired pistol cartridges, producing relatively mild chamber pressures and muzzle blasts. But what about suppressing a high-powered rifle, which generates 10 times that pressure and blast? Common wisdom in the 1960s thought that a suppressor effective enough to reduce a high-powered rifle’s enormous blast would have exploded from the tremendous pressure. Could such a device actually work?

To effectively reduce a rifle’s blast, an old-fashioned suppressor would have to be huge—but the newest suppressors were small. An Atlanta-based company, Sionics, headed by OSS veteran Mitch WerBell III, developed a suppressor family that used “expansion chambers” and a spiral gas diffuser that increased the relative distance the muzzle blast’s gas circulated without increasing suppressor size.

In 1970 SOG received a num-

ber of Sionics-suppressed M16s, which were added to its already extensive collection of suppressed submachine guns—Uzis, Stens, Swedish Ks, and M3 “Grease Guns”—which were employed to eliminate trackers and sentries, ambush small patrols, and attempt prisoner snatches. I used a suppressed Swedish K myself and shot a number of North Vietnamese soldiers with it.

The new Sionics-suppressed M16 instigated questions about its effectiveness among a number of SOG men, who wondered how effectively it would perform without subsonic ammunition, which was unavailable. Despite the bullet’s supersonic “crack,” we had been told the suppressor still would confuse the enemy about a firer’s location. To learn exactly what it could and could not do, Medal of Honor recipient Franklin “Doug” Miller and I conducted our own test.

True enough, we saw immediately, the Sionics suppressor reduced muzzle blast impressively, to something like a .22 Long Rifle—detectable, we thought, to 50 meters at most. But that supersonic “crack” was still there.

Pacing off about 250 yards, we took turns shooting toward each other, within a few yards, to learn how well that “crack” could be detected by a prospective target and his companions. Neither of us could hear the suppressed muzzle report, but the bullet’s “crack” was as distinct as an ordinary M16. Period literature claimed that firing a full-powered, supersonic round through a suppressor would still “confuse” or “deceive” the enemy, but we also knew that our own ears told us this was not “confusing” or “deceiving” enough. It took a couple of shots to figure it out, but then it struck us: we might not hear the “crack” until the bullet reached us, but after that its “crack” continued to follow the bullet’s flight, just like sound following a train racing away. You didn’t have to be a genius to figure out this meant the bullet had come from the opposite direction, and you could mentally track it back to an approximate area.

You couldn’t pinpoint the tree where the sniper was hiding, but you could sure tell his direction to within 15 or 20 degrees. The good news was that it took some time even for highly trained Special Forces weapons men to figure that out; the bad news was that eventually any enemy would realize that, too. At our likely engagement distances along the Ho Chi Minh Trail—100 to 200 meters—we were too close for counterfire tossed 15 to 20 degrees in our direction and the massive reaction forces that would be sent after us. The suppressed M16 was impressive, but neither of us carried it on missions.

That didn’t mean the Sionics suppressor wasn’t used effectively by other units. For one thing, it eliminated muzzle flash in darkness, a considerable benefit for night engagements. Some 40 Sionics suppressors for XM-21 rifles were hand-carried to Vietnam by new instructors assigned to the 9th



Special Forces Sergeant Mark Kinsler with a suppressed XM-21 and PVS-2 Starlight scope.

Division Sniper School. These worked out quite well in the Mekong Delta, where American snipers used them in combination with PVS-2 night scopes for engagements in darkness, which left the enemy wondering how his comrades had been killed. "The suppressor is very effective," a 9th Division sniper reported. "The VC just seem to mill around even after a couple of them have been dropped."

Another Sionics product that saw service in Southeast Asia was the *Sionics Sniper Carbine*, a rather exotic weapon in SOG's arsenal. A much-modified M1 Carbine, it had a paratrooper stock and fired 9mm ammunition. The greatest mechanical difference was that it was not a semiautomatic but a manually operated,

straight-pull bolt action. Because the action remained closed while firing, it was SOG's quietest long gun and came standard with a 4x rifle scope, giving it the appearance of a sniper weapon. Its major drawback was that it could not be disassembled and carried in a rucksack, committing its shooter to using an underpowered, bolt-action 9mm rifle with only a 13-round magazine as his primary weapon. That wasn't very practical.

New cutting-edge suppressors offered useful capabilities, but it was up to the right unit in the right operational environment to get the most out of them. That would prove to be conventional American troops fighting in the Mekong Delta.

ONE BATTALION'S SNIPER PROGRAM

With the personal emphasis of General Ewell, battalion commanders across the Mekong Delta were urged to maximize their snipers. One such commander, leading the 4th Battalion, 39th Infantry, Lieutenant Colonel David Hackworth—who would earn fame as a postwar writer and commentator—took that guidance to heart. As his first step, Hackworth appointed a Battalion Sniper Employment

Don Holleder, All-American

When Army overwhelmed Navy 14 to 6 in 1955, many attributed that football victory to the spirited leadership of the team's All-American quarterback, Don Holleder. The acclaimed West Pointer made the cover of *Sports Illustrated* and a year later was drafted by the National Football League's New York Giants.

But professional football could not divert the committed Holleder, who raised his right hand and was commissioned a U.S. Army second lieutenant.

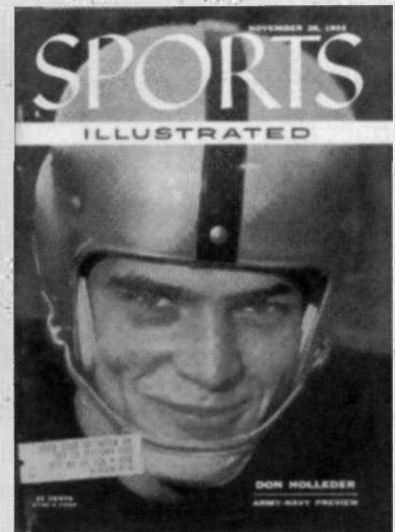
A decade later Holleder was a fast-rising major and the S-3 operations officer of the 28th Brigade, 1st Infantry Division, in Vietnam. On 17 October 1967, the brigade's 2nd Battalion walked into possibly the bloodiest ambush of the war some 40 miles north of Saigon, tripped by snipers of the North Vietnamese Army's 271st Regiment. Among the snipers' early casualties was the battalion commander, Lieutenant Colonel Terry Allen Jr., whose father had led the 1st Division during World War II. "I am OK," he reassured his soldiers, then was killed by an exploding munition, possibly an RPG.

"We could not see them," Specialist Fourth Class James Schultze later reported. Outnumbered three or four to one, the Americans fought off assaults from two sides. Then the battalion command post was overrun, and two companies were split into smaller elements.

Fearing that the entire force might be overrun and the many wounded men slaughtered, Major Holleder flew in aboard a Huey, leaped out, grabbed some soldiers, and made a dead run for the ambush site. "I have never seen such an officer," one soldier later told *Newsweek* magazine. "What an officer! He went on ahead of us—literally running in the point position."

But this was not Annapolis, and Don Holleder was not on a football field. An enemy sniper spotted the dashing figure, aimed, and shot him down. He died in minutes. By then, the ambushed soldiers had sufficiently bloodied the North Vietnamese that they pulled back, leaving behind 55 dead Americans and another 66 wounded.

It all had happened in one hour, perhaps the most furious 60 minutes of the entire war.



West Point's All-American football star, Don Holleder, appeared on the 28 November 1955 cover of *Sports Illustrated*.

Officer, First Lieutenant Larry Tahler, to oversee and coordinate sniping and work with the battalion staff to put snipers at the right place and time to achieve the best results. Ideal for this job, Lieutenant Tahler was a former NCO and a qualified sniper himself.

Lieutenant Colonel Hackworth challenged Tahler and his sniper non-commissioned officer in charge (NCOIC), Platoon Sergeant John Morales, to exploit any advantages to the utmost: night vision, suppressors, helicopters, intelligence, *anything* that put the enemy at a disadvantage or posed an opportunity. Through the battalion S-2 officer, Lieutenant Tahler could react to the latest intelligence; via the battalion S-3 operations officer, he could attach snipers to infantry companies most likely to make contact or face the heaviest contact. Thus snipers became integrated with everything the battalion did, and Tahler saw "here was a chance to make a visible difference in the war effort."

Tahler launched many one-day, daylight sniper missions, in which teams were inserted by



Just back from the field, a 9th Infantry Division sniper cradles his XM-21.

helicopter at dawn into an area likely to contain enemy, hunted VC until dusk, and then were extracted. These teams consisted of two snipers and a five-to-eight man security element, enough to fight their way clear if necessary but also small enough to move and hide with a minimal chance of discovery. Responding only to fresh intelligence, these teams scored kills almost every day and so impressively demonstrated

their deadliness that brigade headquarters allocated Lieutenant Tahler one Huey and a pair of gunships daily.

Lieutenant Tahler accompanied some missions and made shots himself. "With every one I killed, I always thought, 'That's one that won't be able to kill one of ours.' And all my snipers felt the same way."

One of his top snipers, Sergeant Bob Jones, each month killed more enemy than any rifle company in the 9th Infantry Division. Tahler's most accomplished sniper, Sergeant Terry Mathis, was credited with 48 kills, including the longest shot, some 900 meters.



A 9th Infantry Division artist's depiction of a Vietcong soldier struck by a long-range sniper's bullet.

The 4th Battalion's sniping effort went on at night, too. Accompanied by small security elements, the sniper teams infiltrated suspected VC areas and then lay in wait, scanning with PVS-2 scopes for targets. When enemy patrols of five or fewer men appeared, the snipers opened fire—using *suppressed* XM-21s. Between the darkness and the suppressed muzzle blasts, the enemy was totally confused and unsure how to react. Time and again, one VC would fall, shot, and his companions would flee, only to return to check his body or attempt to retrieve his weapon—and *another would be shot*. In some cases this went on for hours, surviving enemy returning only to be shot, until the entire group was killed.

During one night mission, Sergeant Ed Eaton approached a suspected enemy base camp, raised his PVS-2 to his eye, and almost gasped—looking directly at him, not 50 feet away, squatted an enemy soldier, his ears cupped, an AK in his lap. Then Eaton realized the man could not see him in the dark,

though he'd somehow heard him. Silently, Eaton slipped his rifle off safety, aimed center chest, and knocked him down, his muzzle blast quieted by a Sionics suppressor.

When there was overcast or no moonlight, the PVS-2 offered hardly a 100-meter shot, but the 4th Battalion found a solution for that, too. The Army had developed a jeep-towed infrared spotlight, the AN/TVS-3, which generated an incredible 1.5 *billion*-candlepower invisible beam, so bright, Lieutenant David Rasco reported, that "on a moonless night it would cast shadows at 600 meters." Nicknamed "Pink Light," this 30-inch IR spotlight would be installed on a rise or at a bridge or even aboard a boat from which its beam shone up to 2,000 meters. Snipers, hidden anywhere within line of sight, could then fire their PVS-2 equipped rifles well beyond the "book" range to totally surprise the enemy. On one such mission, a sniper team watched a road thought to be used by the VC at night. Sure enough, around midnight a half-dozen enemy appeared, and all fell to well-aimed, suppressed gunfire, illuminated by the invisible Pink Light.

As his snipers gained night-shooting experience, Lieutenant Tahler took it a step further, persuading Lieutenant Colonel Hackworth to put Starlight-equipped snipers aboard low-flying Hueys at night with portable IR floodlights. Code-named Night Hunter, these birds flew blacked-out with snipers lying on the aircraft floor, scanning through their PVS-2s. When a sniper spotted a VC patrol or sampan in the green image of his scope, he fired well-aimed tracer; the door gunners instantly added more tracer, and, following them, a pair of Cobra gunships added rockets and miniguns. It was a devastating tactic. In a single Night Hunter mission, the snipers and aircrews detected and shot up 21 sampans, setting off three secondary explosions and yielding 13 confirmed kills.

Overall, the 4th Battalion's was an awesome effort, the epitome of what well-trained, well-employed snipers could achieve. As Colonel Hackworth recounted in his memoir, *Steel My Soldiers' Hearts*, "Tahler's snipers accounted for 456 kills—roughly equivalent to an enemy battalion, or nearly 20 percent of all our [battalion's] kills."

"Pound for pound," Hackworth called these 20 snipers "our most effective killing machine."

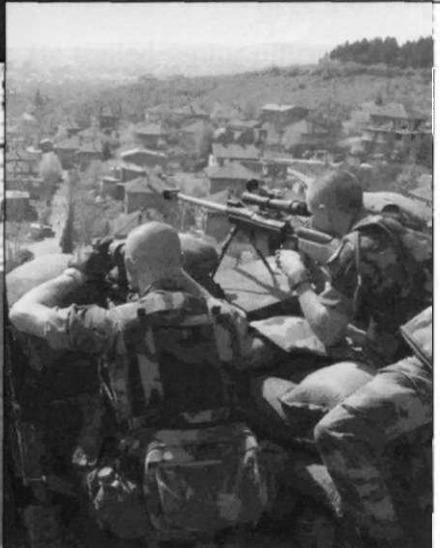
It was a stunning indicator of what snipers could do and, in many cases, had done in many unheralded actions. Despite the war's outcome, hundreds of Marine and Army snipers had given their all, starting from scratch to develop new tactics, devise innovations, exploit technology, and advance the art and science of sniping. Thanks to Major Powell, for the first time there was even a real sniper training manual.

But, like previous conflicts, would it all soon be forgotten?

PART

6

SNIPING INTO THE 21st CENTURY



SNIPING AFTER VIETNAM

The three decades after the Vietnam War saw an explosion in sniping technology, advancing the craft and its capabilities more than any previous period of history. But it did not start out that way.

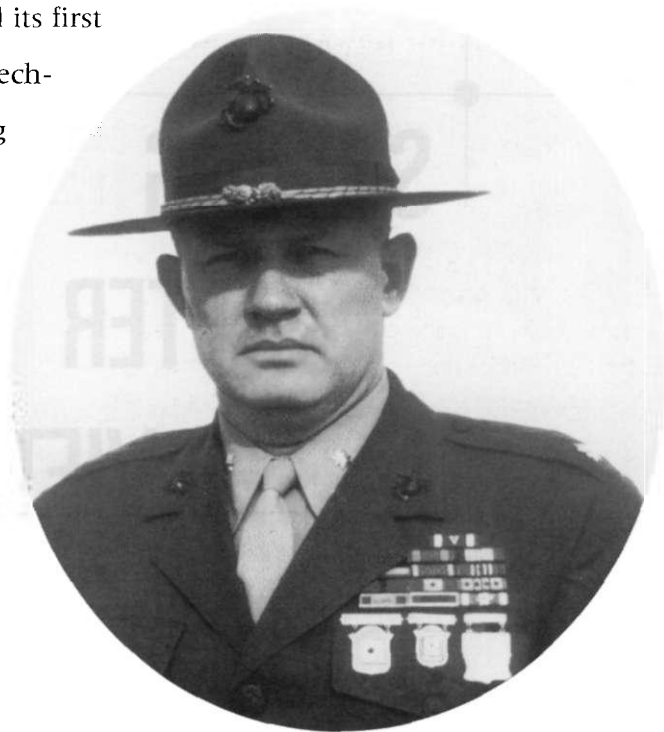
As quickly as American ground combat ended in Vietnam, the Army and Marine Corps mothballed its sniping establishment. Gone were the schools, the sniper slots, the effort to develop tactics, gear, and weapons . . . everything. It might well have remained that way but for a human dynamo named Jim Land, who had founded the 1st Marine Division Sniper School in Vietnam. By 1976, Land was a major and the USMC's chief of marks-

manship. This could have been just another staff job, but to Major Land, who knew the bloody price paid to advance sniping knowledge, this position became a bully pulpit.

At Headquarters, Marine Corps, to anyone who would listen, he espoused the value of precision fire—not just as an economy of force but an essential *capability*, as critical a component of modern warfare as a machine gun or mortar. He trailed senior officers on golf courses, accompanied them down Pentagon corridors, and cornered them over lunches in the cafeteria. Land repeatedly urged that the Corps needed four things: a sniper military occupational specialty, proper armament, a formal sniper school, and real scout-sniper slots—not additional duty positions.

After a year of lobbying, his campaign achieved its first victory. At Quantico's Precision Weapons Facility, technicians rebuilt the aging Remington M40, replacing its wooden stock with a synthetic McMillan fiberglass one, plus adding a match-grade H&S or Hart barrel. This new version, the M40A1, fired impressively: on average, 1-inch groups at 100 yards with M118 Special Ball ammunition.

Continuing his campaign, the next year Major Land scored double victories: the Marine Corps reinstituted the scout-sniper specialty, MOS 8541, and it created slots for scout-snipers in each Marine infantry battalion. No longer sniper platoons, these were STA—Surveillance and Target Acquisition Platoons—to reflect the additional roles of reconnaissance and adjusting air strikes and artillery.



Major Jim Land, the driving force behind the Marine Corps' sniping renaissance and later the full-time secretary of the National Rifle Association.

A Marine sniper student in training at Quantico, Virginia.



The M118 Long Range Round

By the early 1990s, the Vietnam-era 7.62mm M118 Special Ball cartridge had been replaced by a military version of the civilian 168-grain match round, designated the M852. Though this round significantly improved accuracy, its 168-grain projectile went subsonic at about 900 yards, with a resulting decline in accuracy.

Desiring to boost the 7.62's range and accuracy, the U.S. Marine Corps asked Picatinny Arsenal to develop a new 7.62mm sniping load and bullet "having the capability of one minute of angle accuracy at 1,000 yards." This launched a cooperative project involving the Marine Corps, Picatinny Arsenal, Winchester-Olin's Lake City Army Ammunition Plant, and Sierra Bullets. The new load would be designated the M118 Long Range.

First, Sierra designed a new 175-grain, boattail, hollowpoint match bullet that was slightly more streamlined and 2 grains heavier than the old M118 and 7 grains heavier than the M852. Next, Lake City's excellent brass case was modified and a new match-grade primer developed, along with more precise forming and loading procedures. Finally, the round's overall length was increased to 2.855 inches.

Extensive live-fire tests demonstrated the new round's superiority against the M852 and the original M118 Special Ball at distances greater than 600 yards. In one Lake City Army Ammunition Plant test, using machine rest barrels, the M118 Long Range's extreme spread at 1,000 yards was only 12.09 inches, compared to 15.32 inches for the M852 and 18.25 inches for the M118 Special Ball.

Along with the Marine Corps, the entire U.S. military switched to the 175-grain M118 Long Range snip-round, making it America's sole 7.62mm sniper cartridge.

Land's greatest achievement soon followed, on 1 June 1977, with a new Scout-Sniper Instructor School at Quantico, assisted by the Marksmanship Training Unit commander, Major Dick Culver. The school's first commandant, Captain Jack Cuddy, and its NCO in charge, Gunnery Sergeant Carlos Hathcock, devised the curriculum, drawing on Hathcock's extensive combat and shooting experience. Graduates of the Quantico school soon began instructing division-level Basic Sniper Training Courses at Camp Pendleton, California, and Camp Lejeune, North Carolina.

As this new generation of Marine snipers spread across the Corps, Captain Cuddy became heavily involved in developing a new sniperscope. The Vietnam-era Redfields had sometimes shifted zero when zoomed from one magnification to another, causing most snipers to zero at 9x and leave it there. Therefore, the new scope, built by the target scope maker Unertl, would have fixed 10x magnification. It also incorporated a bullet drop compensator (BDC) synchronized to the M118 Special Ball round's trajectory. For accurate shooting, a sniper needed only to estimate the distance, set the bullet drop compensator, and fire. And, thanks to an innovative new reticle style, the mil-dot reticle, he could calculate range with an accuracy never before achieved (see "The Mil-Dot Reticle," page 592).



The Marine Corps' post-Vietnam scope, the 10x Unertl.



A Marine sniper takes aim at a Hezbollah gunman at Beirut International Airport, 1983.

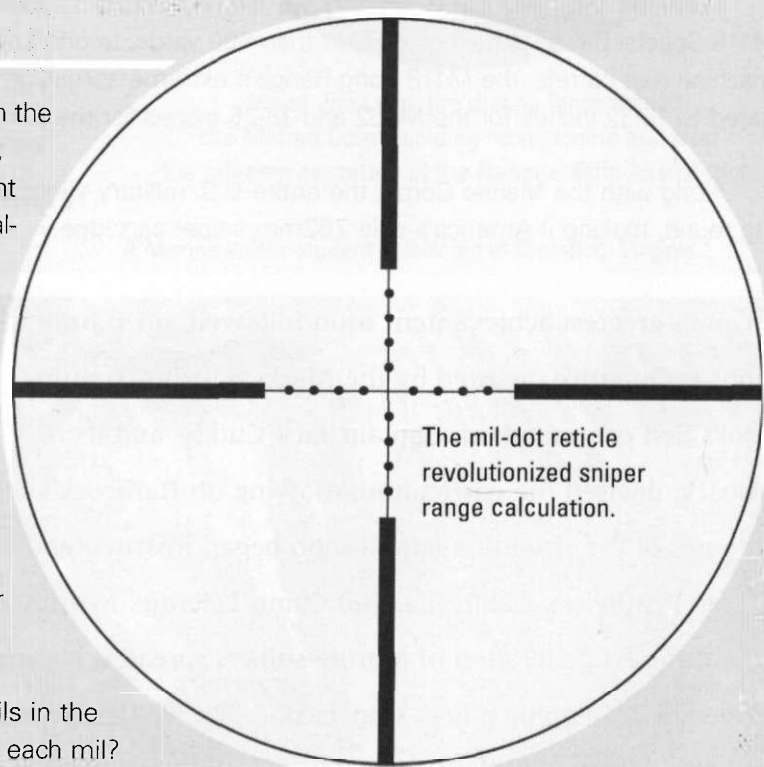
The Mil-Dot Reticle

While Unertl engineers worked with the Marine Corps to develop its new sniperscope, Captain Jack Cuddy, the founding commandant of the Scout-Sniper Instructor School, was challenged to devise a new reticle that could precisely estimate range.

As early as World War I various scales and brackets had been inserted in reticles for range estimation, but none offered the exactness Cuddy was looking for. Artillery forward observers had been using mil scales in binoculars that yielded distances accurately, but they were much too large for measuring man-sized objects.

What if, however, there were only 10 mils in the reticle, carefully laid out using a dot to mark each mil? This mil-dot scale would be 10 mils high and 10 mils wide, with the very center dot left out—having it there dead center would interfere with aiming. Further, the most outward dots were replaced by the edge of the thicker reticle line to allow contrast against a measured object.

The Unertl scope's mil-dots looked like miniature footballs because they were superfine wrapped wire that tapered off. Other mil-dots could be perfectly round because they were etched or laser cut into the lens of the first focal plane. No matter the dot style, the distance *between* dot centers was always 1 mil.



Here's how it worked: A mil is an angular width, a tiny wedge that grows with distance. At 100 yards the space from one dot to the next equals 3.6 inches; at 1,000 yards, proportionally widening, that same space has grown to 36 inches, or 1 yard. All a sniper needed to do was measure an object of known size at his target's distance—say, the length of a rifle—and then calculate the range using a simple formula:

$$\frac{\text{Measured Object's Height or Width in Yards (or Meters)} \times 1,000}{\text{Same Object's Width or Height in Mils}} = \text{Range in Yards (or Meters)}$$

Since, for example, he knew an enemy's rifle was 36 inches long (1 yard), and it measured 1.5 mils, the soldier holding it was 666 yards away. The mil formula worked equally well for ranging in meters if the object's width or height was estimated in meters. When used properly, the mil-dot reticle proved a sniper's most accurate means of range estimation, and soon it was found in many scopes, including the Army's Leupold-made M3 on the M24 Sniper Weapon System. Not until the introduction of laser rangefinders did it become possible to exceed the mil-dot's precise distance measurements.

The new snipers' first test came in Lebanon in 1983. The 24th Marine Amphibious Unit deployed that May to Beirut International Airport and soon had radical Shiite Amal militiamen and Hezbollah gunmen throwing rounds its way. Firing from the slum at Hay es Salaam, on 15 October a terrorist sniper killed Staff Sergeant Allen Soifert; two days later a Hezbollah sniper killed Captain Michael Ohler and wounded three more Marines. Rules of engagement were eased, and Marine snipers opened fire on any armed foe who appeared. By the time the Marines stopped firing, five Amal gunmen were dead and another 10 seriously wounded. These terrorists would never again so easily take lives. But a week later a truck bomber rolled into the airport, detonated his lethal load, and killed 241 U.S. servicemen (220 Marines, 18 Navy personnel, and 3 Army soldiers), a catastrophic loss that led to the withdrawal of U.S. forces.

That same week of October 1983, U.S. Army Rangers parachuted onto the Caribbean island of Grenada, where their snipers engaged Cuban army troops at the Point Salines Airfield. Although claiming to be "construction engineers," the Cubans opened fire with mortars and heavy machine guns, threatening the landing Americans. Keen-eyed Ranger snipers, however, employed their M21s from 600 meters and swept the guns and mortars clean, killing or wounding an estimated 18 Cubans. Grenada was liberated in a few days—but where had those snipers come from?

SOTIC AND THE M24 SNIPER WEAPON SYSTEM

Officially the U.S. Army then had no recognized sniper school, but, of necessity, a few unofficial courses had been training snipers for several years. At Fort Bragg, North Carolina, the 18th Airborne

The Falklands and Britain's New Sniper Rifle

At times the toughest going the British Army faced in the 1982 Falklands War was the fire of Argentine snipers. On 12 June, a single Argentine marksman held up an entire company of the Parachute Regiment's 3rd Battalion at Mount Longdon. "Men found themselves being hit more than once by the same sniper," wrote a British officer, "a terrifying tribute to the accuracy of the Argentinian's fire."

At the Battle of Goose Green, another para battalion fought off well-concealed snipers. As a witness recalled, when a soldier "went back under fire to retrieve [web gear] containing one hundred rounds, suddenly he cried out and fell. He had been shot through the neck . . . and was dead by the time he hit the ground."

Occasionally British snipers took out the Argentines, but the most effective (and expensive) counter proved to be the Milan antitank guided missile.

Going into the war, British snipers were armed with a sporting rifle, the Parker-Hale 7.62mm bolt action. Since it was a wooden-stocked weapon, the Falklands' constant dampness undoubtedly warped some stocks and helped spur a postwar search for a new British sniper rifle.



British snipers went into the Falklands War with the Parker-Hale sniper rifle, topped by a Kahles 6 x 42mm scope.

The rifle eventually selected was the Accuracy International bolt action, a purpose-built sniper weapon designed by the late Malcolm Cooper, a two-time Olympic gold medal rifleman and nine-time world champion. The Accuracy International rifle's squarish action enabled Cooper to simplify truing many inner mating surfaces. Further, instead of bedding the action he permanently attached it to a lengthy aluminum rail, simultaneously solving free-float and bedding issues. The clamshell stock simply screwed over this aluminum rail. Not only is this excellent rifle the standard sniper weapon for the United Kingdom and a number of Commonwealth countries, but also dozens more have adopted it, including Sweden and Spain.



Designed by Olympic champion rifleman Malcolm Cooper, the Accuracy International AW sniper rifle.

Fielded initially in Great Britain as the L96, it was upgraded after modifications for the Swedish military created the AW (Arctic Warfare) version, which has become its standard model. The AW Super Magnum is chambered for .300 Winchester Magnum, while upsized versions also exist in .338 Lapua Magnum and .50 caliber. Most of these rifles are supplied with excellent Schmidt & Bender rifle scopes, and all are tack-drivers, with my AWP, Serial No. 96AW-2145, shooting consistently under 1/2 minute of angle.



The U.S. Army's M24 Sniper Weapon System.

Corps ran a short course, as did several infantry divisions and the 1st Army at Fort Meade, Maryland. These graduates had mastered their rifles, but the courses lasted only a week or two—too short to teach the sophisticated tactical and technical skills demanded of snipers, especially Special Operations snipers.

To meet the latter need, in 1983 the Army's first-ever official peacetime sniper school had been founded at Fort Bragg. The Special Operations Target Interdiction Course, or SOTIC, instructed Special

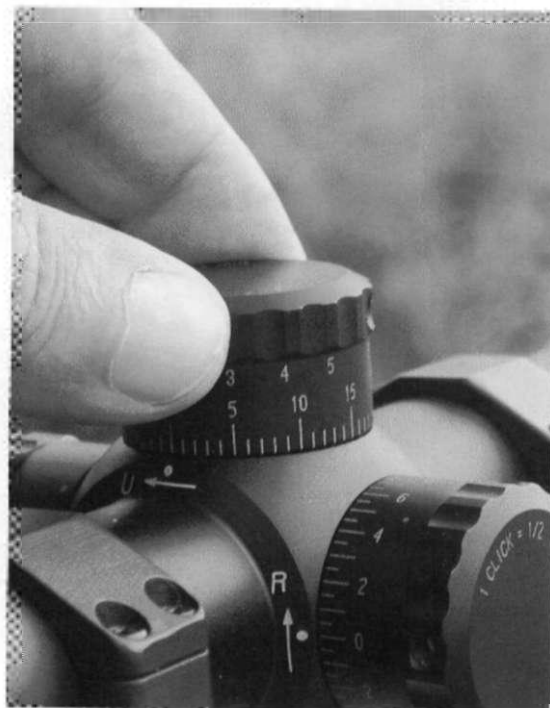
Forces, Rangers, and covert SpecOps personnel. This intense six-week course addressed the essentials—marksmanship, tactics, and fieldcraft—but went on to cover heavy rifles, night vision devices, thermal imaging, dog evasion, high-angle shooting, even tricks for slipping through ground radar and sensors. On exercises, students parachuted at night onto unfamiliar terrain and then had to stalk cross-country to reach their targets, shoot, and exfiltrate.

The SOTIC instructor staff, then the Army's most knowledgeable sniper cadre, also devised and tested what became the next generation Army sniper weapon system: the M24. Working with John Rogers from Remington, SOTIC instructors selected each component—the H&S Precision stock, the aluminum bedding block, the Leupold Mark IV Ultra scope (like the USMC Unertl, a fixed 10x with a BDC and mil-dot reticle), the Harris bipod, even the robust Model 700 action. The first M24s reached Special Forces units in 1988, with Army-wide distribution achieved by 1992.

In many ways the M24 was similar to the Marine M40A1, but, of great interest to SpecOps snipers, it could be converted to fire the powerful .300 Winchester Magnum cartridge. This round traditionally had dominated 1,000-yard shooting at the NRA's annual Camp Perry matches and significantly outperformed the 7.62 x 51mm M118 Special Ball round. In 1987, the Navy Surface Warfare R&D Office worked with Federal Cartridge and Sierra Bullets to develop a special 190-grain load with a muzzle velocity of 2,950 feet per second. At 1,000 yards the M118 7.62mm yielded 545 foot-pounds of energy, while the .300 Winchester Magnum struck with 843 foot-



A Special Forces sniper at the Special Operations Target Interdiction Course (SOTIC).



Bullet drop compensator on the Leupold M3A scope.

Russia's SV-98 Rifle

In the late 1990s, Russia replaced its aging SVD semiauto sniper rifle with a modern bolt action, capable of accuracy on a par with Western sniper rifles. Although the SV-98 suspiciously resembles the Accuracy International AW in both profile and its action's squared-off shape, and similarly incorporates a 10-round detachable magazine and through-the-stock grip, it differs in too many ways to conclude that it's a reverse-engineered copy.

Instead of the AW's clamshell stock that attaches to a full-length aluminum skeleton, the SV-98's action is bedded inside a laminated wood stock with a thermal bedding technique unique to this rifle and the earlier Russian target rifle from which it evolved, the Record-CISM.

Like the Record-CISM, the SV-98 is capable of sub-minute of angle, sniper-grade accuracy when using match-quality ammunition. Unfortunately, the SV-98 is mated to the PKS-07 scope, a 7x optic that simply cannot compare with 10x or larger magnification for long-range engagements or precision shot placement at closer ranges.

Of equal interest to this weapon is what it portends for Russian military sniper employment. The SV-98 signals a shifted emphasis on shot placement and away from volume of fire; to place shots accurately, the sniper will need a spotter to detect targets at longer distances and to adjust the sniper's fire. Essentially, Russian snipers are returning to their World War II tactical roots to operate more like Vasili Zaitsev—and more like today's Western snipers.



Russia's newest sniper rifle, the SV-98.
(Courtesy of Valery Shilin Guns Club.)

Sniping in Chechnya

The 1990s saw protracted combat in the Russian breakaway Republic of Chechnya, especially in the capital, Grozny, which generated much sniping. Islamic Chechen snipers demonstrated flexibility and ingenuity in fighting Russian forces, and their experiences undoubtedly influenced Iraq's insurgent snipers.

The Chechens scored some impressive combat achievements, among them the 18 January 2000 sniper killing of Major General Mikhail Malofeyev, deputy commander of Russia's Army Group North. Repeatedly, they halted and pinned Russian units that attempted to enter Grozny.

One innovation that confounded Russian troops was a concrete spider hole, from which a Chechen sniper would fire a shot and duck while his comrades lowered the heavy slab using car jacks. It was impervious to counterfire. Snipers also became the basic building block for Chechen hunter-killer teams ("fighting groups"), which combined snipers with RPG rocketeers and machine gunners for roving hit-and-run attacks—a tactic mimicked by Iraq's insurgents and quite likely inspired or instructed by Chechen veterans. As in Iraq, Chechen snipers wore disguises, intermingled with civilians, and donned Red Cross armbands to escape the Russians.

Although not seen in Iraq, in Chechnya's rural areas the rebels fielded five-man teams, with one sniper and four AK or machine gun–armed gunmen. The sniper would stalk forward perhaps 500 meters or lie in ambush that far forward, and fire one well-aimed shot. Hearing this, his comrades would open fire to divert attention and provide covering fire for the sniper to escape.

Given their expertise, it's possible that some of Iraq's best insurgent snipers—the one-shot, one-kill types—were trained or advised by Chechens. Or some may actually have been Chechens.



Russian General Mikhail Malofeyev was killed by a Chechen sniper.



Iraqi terrorists have sometimes organized or fought like their Chechen cousins, such as this Iraqi "fighting group."

pounds—60 percent more. Trajectory-wise, with both rounds zeroed at 100 yards, the Magnum flew much flatter at 1,000 yards, flying 100 inches higher than the M118. Due to its superior penetration and lethality, Delta Force and Navy SEAL teams came to prefer the .300 Winchester Magnum.

THE NATIONAL GUARD AND ARMY SNIPER SCHOOLS

In 1983—the same year as Beirut, Grenada, and the founding of SOTIC—the National Guard Sniper School was founded at Camp Ripley, Minnesota. As the state's marksmanship coordinator, responsible for marksmanship training and competitive shooting, I'd inherited some superb riflemen, particularly Lance Peters, an Olympic-level shooter, who would make outstanding instructors.

Teaming up with my co-founder, Major Gary Schraml, a fellow competitive shooter, I drew on my own experience as a Special Forces weapons NCO and MACV-SOG team leader who'd led missions along the Ho Chi Minh Trail in Laos to develop the school's curriculum. In addition to drawing from



Instructors and a graduating class at the National Guard Sniper School, at which the author (front row, second from right) was cofounder and commandant.

TC 23-14, *Sniper Training and Employment*, we made visits to the “unofficial” 7th Infantry Division Sniper School at Fort Ord, California, and the 1st Army School at Fort Meade and added many subjects not otherwise addressed, including tracking, uphill/downhill shooting, and constructing dummy positions.

From a modest three-day course, it soon grew into a week-long national program. Later, when I became commandant, we obtained War on Drugs funding and instructed hundreds of law enforcement snipers, too.

Eventually the school relocated to Camp Robinson, Arkansas, home

of the Guard’s Marksmanship Training Unit and the annual Winston P. Wilson Matches, and expanded to a four-week course that instructed the Army Sniper School’s curriculum. Only the Fort Benning School and Guard School could award the Army’s B4 sniper Additional Skill Identifier.

In 1987 the U.S. Army Infantry School had restored the Sniper School at Fort Benning as the single definitive basic sniper course in the Army system. Operated under the 2nd Battalion, 29th Infantry Regiment, the founding instructors all were graduates of the Marine Scout-Sniper Instructor School or SOTIC. The Army Marksmanship Training Unit, also located at Fort Benning, provided master rifle instructors who assisted the first few cycles, which initially lasted three weeks and contained 22 students. Captain Mark Rozycki, a future president of the Army Sniper Association, commanded the school at the end of its first year and saw it quickly evolve into the Army’s test bed for sniping weapons and gear, and a receptacle for sniping lessons learned.

Two years later, the Army authorized the B4 sniper Additional Skill Identifier and created slots for



Instructors at the U.S. Army Sniper School, circa 1999.

snipers in each infantry and Ranger battalion's scout platoon. Eventually, the course expanded into a five-week school, which it has remained as of this writing.

OPERATION JUST CAUSE IN PANAMA

This training was put to the test in the 1989 invasion of Panama, where, for the first time since the 1968 Tet Offensive, American snipers found themselves fighting on urban terrain. Army snipers with Task Force Wildcat (5th Battalion, 87th Infantry) provided invaluable support to the assault on a major military headquarters, the *Direccion Nacional de Transito*, where they were credited with seven kills. Panamanian Defense Force snipers near the building temporarily pinned Captain Don Currie's infantry company. "There were at least two snipers, probably three or more in the complex," he later told a debriefer. That impediment was soon removed with a 90mm recoilless rifle.

Deadlier Panamanian sniper fire greeted Task Force Gator troops (4th Battalion, 6th Infantry) as they neared the country's "Pentagon," known as *La Comandancia*.

One well-aimed head shot instantly killed a GI riding atop an M113 armored personnel carrier; another shot struck an M60 machine gunner, who fired back; and a third round seriously wounded their platoon sergeant. The sniper's position, in a

high-rise building across the street, drew such heavy return fire that he was either killed or too afraid to fire again.

Another Panamanian sniper's fire instigated the most classic countersniper engagement of the short conflict. Situated in a high-rise apartment building, the Panamanian had been firing at U.S. troops when Sergeant First Class William "Luke" Lucas, a Vietnam vet sniper with 38 confirmed kills, left his staff job to try his hand at silencing him. Grabbing an M21 Sniper System, the 82nd Airborne paratrooper hurried to the 15th floor of the Marriott Hotel, where a spotter directed him to a facing apartment building.



Panama's military headquarters, *La Comandancia*, was the scene of significant sniping during Operation Just Cause in 1989.

Counting off four rows of windows from the top and 13 windows from the left, the veteran sniper studied a shadow. "I see him," Lucas whispered. The distance, he calculated, was 750 meters—a half mile. Waiting for a break in the wind, he fired one carefully squeezed shot—and got him.

Another 82nd Airborne sniper, riding aboard an OH-58 helicopter, provided splendid supporting fire to a rescue mission at Renacer Prison, where his fellow paratroopers liberated 65 prisoners, including two Americans.

The fighting was short, the engagements few, but U.S. snipers came away with some new (and some relearned) lessons from Panama. Only eight months later, many would deploy for the largest American conflict since Vietnam.

DESERT STORM

The Gulf War proved largely an air campaign, followed by extensive armored maneuvering, not much of a sniper's or an infantryman's war. With most fighting at ranges beyond a sniper rifle and almost no dismounted battles—and the entire land phase lasting just 100 hours—sniping engagements were quite few. Volume 2 of Norm and Rocky Chandler's history of Marine sniping, *Death from Afar*, cites only 39 claimed sniper kills for the entire 1st Marine Division.

Still, there were notable engagements. Sergeant Kenneth Terry, with the 3rd Battalion, 1st Marines, spotted a formation of Russian-made BMP armored personnel carriers approaching his unit position. Barrett Firearms had expedited delivery of a hundred .50-caliber rifles to Saudi Arabia, so Sergeant Terry was able to eye the approaching vehicles through his 16x scope, aim, and let loose a new, high-tech Raufoss projectile (see "The Barrett .50 Caliber," page 604). The BMP, more than 1,200 yards away, jerked to a halt, the .50-caliber round having penetrated and exploded inside. Not only had Terry stopped the vehicle, but the troops in three accompanying BMPs streamed out, hands raised.

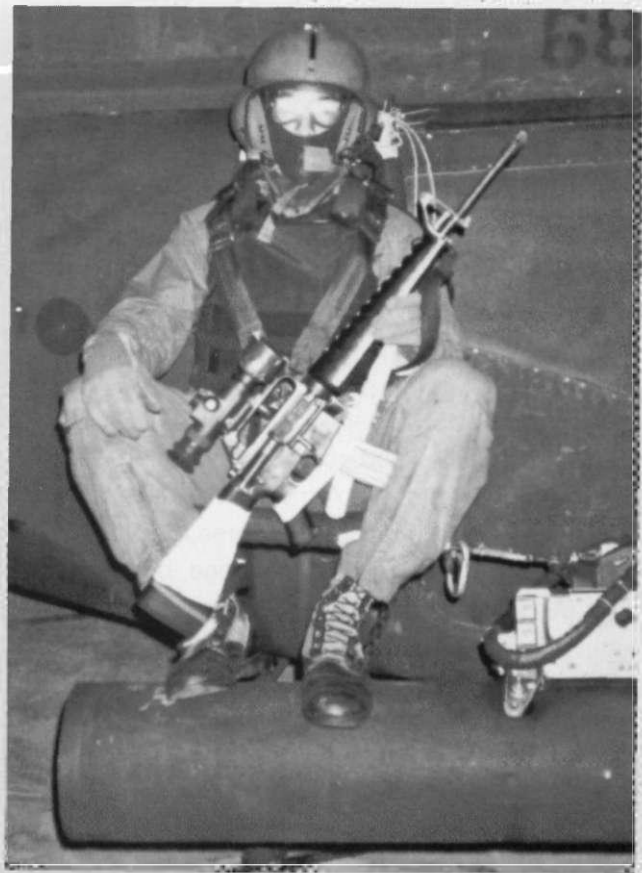
Deep in Iraq, U.S. Army Special Forces recon teams monitored the Tigris River Valley, with M24-armed snipers among them. When one team was compromised and enemy forces attacked, its sniper shot a half-dozen Iraqis at 700 or more yards, his precision fire holding them off until air support arrived. He was awarded the Silver Star.

Technologically, Desert Storm's greatest sniping advance involved a handheld device costing \$10,000 apiece, the laser rangefinder. It was much too expensive to put in the hands of ordinary snipers—at least for now.

Night Sniping in the Gulf

Late in the Iran-Iraq War, the government of Iran began clandestinely mining the Persian Gulf to disrupt the passage of oil tankers. Exploiting darkness, Iranian fishing boats and gunboats slipped into the shipping lanes to dump their mines and escape before daylight. Tehran denied any responsibility for the mining.

In a clandestine tit-for-tat, in 1987–88, U.S. Special Operations forces clandestinely went after these vessels, employing SpecOps helicopters, some of which carried Navy SEAL snipers. One such sniper was my friend, Navy SEAL Master Chief Jim Kauber, who flew strapped to the outside of a U.S. Army OH-58 helicopter. Employing Litton M845 night vision devices on their M16s, Kauber and his cohorts hunted in total darkness, guided to their targets by the OH-58's mast-mounted FLIR system. U.S. Special Operations Command later credited one of these Operation Earnest Will missions as "the first successful night combat engagement that neutralized an enemy threat while using aviator night vision goggles and forward looking infrared devices."



Navy SEAL Master Chief Jim Kauber sits on an OH-58 helicopter, ready for a flight on the Persian Gulf.



A Marine sniper team during Operation Desert Storm, 1991.

The Barrett .50 Caliber

Designed by Ronnie Barrett in 1982, this 10-shot, semiauto .50-caliber rifle evolved into a surprisingly accurate weapon that, by the early 21st century, was used by all branches of the U.S. armed forces and many countries around the world. It first saw combat service in 1991's Desert Storm.



A U.S. Army Barrett M107 with a PVS-10 day/night scope.

The latest USMC version, the M82A3, or "Sasser" (Special Application Scoped Rifle), was the starting point for the Army's M107, developed in conjunction with snipers from the U.S. Army Special Operations Target Interdiction Course (SOTIC). When the M107 selection process began, it appeared that pinpoint accurate bolt guns had the edge, but analysis revealed that every real-world materiel target destroyed by a .50 caliber required multiple hits. To reduce engagement time and the counterfire threat to snipers, the requirement for fast follow-on shots and reasonable magazine capacity eventually favored the Barrett.

The military considers this 31-pound rifle's accuracy and terminal effect capable of hitting individual enemy personnel to 1,500 meters—slightly under a mile—while larger materiel targets can be hit to 2,000 meters. Indeed, the .50-caliber Barrett's greatest utility is *anti-materiel*: punching through walls to defeat barricaded gunmen; halting vehicles, vessels, or aircraft by blasting critical components; and disabling mines and unexploded ordnance by sheer impact energy (see "Modern .50-Caliber Cartridges," page 621).

The M107 Long Range Sniper Rifle sports a lengthy Picatinny accessory rail running from the receiver across the forearm that can accommodate a night vision adaptive sight ahead of its daytime optic. The



A USMC SASR ("Sasser") in action in Iraq.



Fifty-caliber slugs effortlessly punch holes through barriers, such as this cement block.

threaded muzzle on its match-grade fluted barrel can mount either an efficient muzzle brake or a newly developed suppressor that reduces both recoil and sound signature.

Combat firings from Afghanistan and Iraq have been extremely impressive. A U.S. Army sniper with the 82nd Airborne Division engaged an Iraqi with an RPG atop a water tower at a lazed distance of 1,400 meters. "The top half of the torso fell forward out of the tower, and the lower portion remained in the tower," he told an Army debriefer.

In 2004, the Barrett rifle was used extensively by U.S. Marines assaulting Fallujah, Iraq, where it won many engagements against hidden RPG gunners, snipers, and ambushers by punching through walls and barriers.

USMC Staff Sergeant Steve Reichert was awarded a Bronze Star for an extreme-range engagement against Iraqi insurgents who had pinned down a Marine rifle squad. Reichert and his sniper teammates climbed atop an oil storage tank to get a clear shot at insurgents on a distant rooftop manning a machine gun. Calculating the range, Reichert fired his Barrett once and missed. Applying an elevation adjustment, he reacquired, and his second shot

squarely struck the enemy machine gunner, forcing the other insurgents to flee. Afterward, a Marine lieutenant measured the distance: an incredible 1,614 meters, or 1,775 yards, a full mile.

The other great .50-caliber asset, barrier penetration, has paid off in many an encounter. In one incident, a Marine sniper rushed to the aid of heavily engaged Americans taking fire from a gunman concealed behind an automobile. The USMC sniper fired his SASR .50 *completely through* the parked automobile, killing the terrorist.

In my own materiel penetration tests—fired with 661-grain ball rounds at 100 yards—I fired three rounds into a V-6 engine block. Each shot penetrated the block's steel exterior, with one round punching completely through both sides of a cylinder wall. At 150 yards, I fired these Barrett rounds at heavy 8 x 8 x 12-inch concrete blocks, which totally blew out the back, shattering and crumbling the blocks. No barricaded gunman could withstand such a fusillade fired against the concrete or brick wall that concealed him, and Iraq's mud-brick structures offer even less protection. The Barrett and its impressive .50-caliber slugs had performed as well as or even better than I'd anticipated.



For Desert Storm, Army Special Forces Detachment A-565 included two cross-trained snipers: Sergeant First Class Dave Thuma (kneeling, left) and Master Sergeant Joe Cyr (standing, right). (Courtesy of Chapter XXXVIII, Special Forces Association.)

REVOLUTIONS IN RANGEFINDING AND WIND MEASUREMENT

Ever since the days of the Kentucky Long Rifle, knowledgeable riflemen knew that the greatest contributor to long-range misses was inaccurate range estimation. Not only did the range estimate dictate hold-over (or an elevation or bullet drop compensator setting) but also the amount a shooter must compensate for wind effect, target movement, and uphill or downhill angle—actually a cumulative effect, with the likelihood of error increasing with distance. Laser rangefinders, offering measurements within plus or minus 1 yard, would dramatically improve long-range shooting.

The first military laser rangefinders were expensive, bulky devices, found only in the hands of artillery forward observers. More compact, the Leica Geovid incorporated a laser rangefinder with quality 7 x 42mm binoculars, originally retailing at \$7,500. A variety of less expensive (and shorter-range)



Viper laser-ranging binoculars.



Electronic wind gauges first appeared in the 1990s.

units soon followed, and by the mid-1990s, the cost had dropped precipitously. Even the Geovid binoculars were down to about \$2,500, and military versions began to appear in the hands of snipers.

Eventually, the U.S. Army and Marine Corps acquired advanced versions of the Geovid, the Vector, which integrated laser rangefinding and (on some models) laser target designation for air attacks and a GPS for precisely determining a target's location. The Vector also measured slant distance for up/down angled firing.

With exact range estimates now possible, that still left wind estimation, a critical influence on long-range shot placement. Technology provided a solution here, too, although not as definitively as laser ranging. Handheld electronic wind gauges, which appeared in the mid-1990s, yielded reasonably accurate measurements, but only at the spot where it was measured. A sniper still had to consider all the potential winds between him and his target and then estimate how these might affect the track of his bullet. Still, as never before, these two precision measurement devices exponentially improved the likelihood of making accurate long-range shots.

SOMALIA

Lasers and wind gauges did not play a significant role in Somalia in 1992–93, where a United Nations force landed to distribute food aid, because most sniper engagements in Mogadishu were less

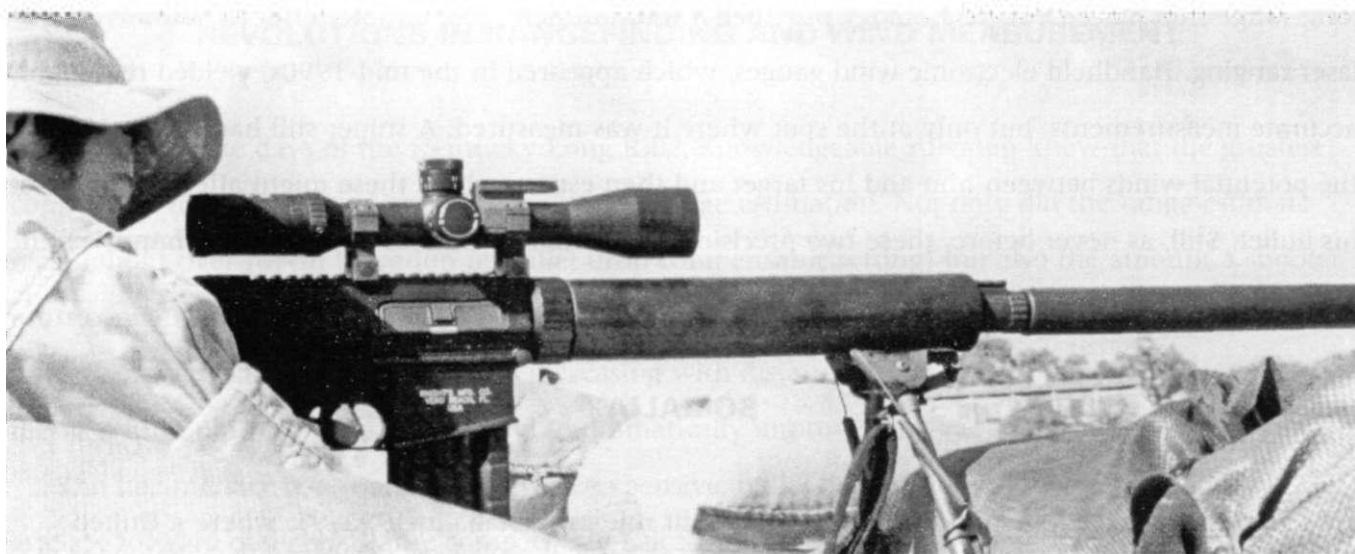
than 500 yards. But sniping did play a significant role there.

Army snipers with the 5th Special Forces Group, coordinated by Lieutenant Colonel Darrell “Moe” Elmore and Master Sergeant Steve Holland, and a detachment of Marine snipers handily cleared Mogadishu’s streets of “technicals”—pick-up trucks carrying heavy machine guns—as well as thugs packing rocket-propelled grenades (RPGs) and crew-served weapons. As a countertactic, armed militiamen began dragging along human shields when they crossed open areas or forcing children to carry their weapons for them.

Suppressors often proved effective, too, partially because they masked the sniper’s location, but also because militiamen didn’t immediately realize they were under fire. Quickly firing suppressed semiautomatic SR-25s, Green Beret snipers could hit multiple targets in a single engagement. And since their bullets either

impacted their intended targets or buildings beyond them, there was no continuing supersonic “crack” to backtrack a shot to the shooter—a problem that had concerned me in Vietnam. Fifty-caliber rifles played a role, too, with .50-caliber Barretts and bolt-action McMillans punching holes through walls to kill gunmen. In one case, a Navy SEAL sniper destroyed a ZSU-23-4 tracked antiaircraft gun with a .50 caliber.

The commander of American forces in Somalia, Major General Carl Ernst, was so impressed by U.S. snipers that he called for a major expansion of sniper training and improved sniper weaponry throughout the U.S. Army. “Snipers are tremendous force multipliers here,” he reported in a message to Fort Benning. “A company of them could control Mogadishu.” Army-wide, General Ernst urged, “we need more snipers.”



A 5th Special Forces Group sniper fires a suppressed SR-25 in Somalia.

Snipers also figured dramatically in the climactic shootout that became known as "Blackhawk Down." On 3 October 1993, Task Force Ranger, a composite unit of Delta Force operators and Army Rangers, raided a downtown Mogadishu hotel to capture senior leaders of warlord Mohammed Aidid's militia. Aboard one supporting Blackhawk, covering the raiders, rode a two-man Delta Force

sniper team, Master Sergeant Gary Gordon and Sergeant First Class Randall Shugart.

Though the raid succeeded, a barrage of RPGs struck several helicopters, downing two. One crew was immediately extracted, but the second bird crash-landed a few blocks away, and its four crewmen were badly injured. No rescue force was available. The two Delta snipers, circling overhead, could see Somalis gathering near the downed bird, but they did not hesitate. Landing, they found only



In Mogadishu, a Marine sniper prepares to engage a target.



A 10th Mountain Division sniper in Somalia, 1993.

one pilot, Chief Warrant Officer Michael Durant, conscious. They put him safely behind the wreckage and then turned to face a building mass of armed foes. Employing his accurized M14 sniper rifle, Master Sergeant Gordon engaged untold numbers of assaulting Somalis, killing "an undetermined number of attackers until he depleted his ammunition," according to his posthumous Medal of Honor citation.

Sergeant First Class Shugart, too, went down shooting beside his sniper team leader, firing to the bloody end. Despite serious injuries and weeks of captivity, Chief Warrant Officer Durant survived. "Without doubt," he said after his release, "I owe my life to these two men and their bravery." Gordon's and Shugart's Medals of Honor were the first awarded since the Vietnam War, and it represented the first time that both members of a sniper team received their country's highest honor.



Master Sergeant Gary Gordon (left) and Sergeant First Class Randall Shugart, Delta Force snipers, fought to the death in Somalia. They were awarded posthumous Medals of Honor.

***SNAJPERISTI* IN SARAJEVO**

Even as the fighting in Somalia was under way, the Eastern European city of Sarajevo, Bosnia, was the scene of unrelenting sniping by Serbian Christian (and sometimes Bosnian Muslim) gunmen. Hidden in the surrounding hills and tall buildings, Serb *snajperisti* indiscriminately shot men, women, and children to halt Yugoslavia's division into independent states. Old women were shot while trying to hang laundry, children while sitting on doorsteps, journalists as they stood in the street.

"They are animals," said Javor Povric, a Bosnian Defense Force sniper. "Their aim is to make this city unsafe to work, walk, and live in. They're trying to kill this city by terror."

Hatred grew exponentially. Pacifists became killers. A 20-year-old Bosnian female sniper, code named "Arrow," told a Western reporter she'd lost count of the number of Serbs she'd killed. A Dutch

A U.S. State Department Countersniper

Though seldom mentioned in the press, the U.S. Department of State maintains its own special weapons teams in the Bureau of Diplomatic Security. One such Special Agent, Tony Deibler, a countersniper, received the department's valor award for saving a Bosnian woman's life when a sniper shot her in 1995.

Halting his vehicle on a Sarajevo street to block the sniper's fire, Deibler applied a tourniquet to the victim's limb to halt arterial bleeding. Then, under continuing sniper fire, he and several British soldiers carried her to safety.

Deibler was decorated again one year later, this time for his role as a countersniper in Monrovia, Liberia. When heavily armed rebels trapped foreign reporters in a hotel, Deibler and another security officer went to their aid, at one point forcing back a rebel sniper who blocked their way. According to the State Department, he was the first special agent ever to be twice decorated for valor.



U.S. State Department countersniper Tony Deibler receives valor awards from Secretary of State Madeleine Albright.

Muslim sniper, who'd previously fought against Israel with the Palestine Liberation Organization in Lebanon shot Serbs with a .50-caliber sniper rifle. "I am a soldier of God," he declared. "The Serbs deserve only one thing: to return to God." He claimed to have killed 72 Serbs, explaining, "It's the biggest pleasure God gives me. I love killing bastards. I can't stop myself."

His Serb counterpart, nicknamed "Pipo," had exactly the same attitude. "Everyone likes peace except me," he told *Time Magazine*. "I like the war." Pipo claimed to have shot 325 people, mostly Muslims. "I hate them all," he boasted. He once had co-owned a



A Bosnian countersniper assembles a dummy in hopes of luring Serbian fire.

business with a Muslim, a good friend, but that didn't matter anymore. He would kill him as readily as anyone else who appeared in his scope, Pipo said.

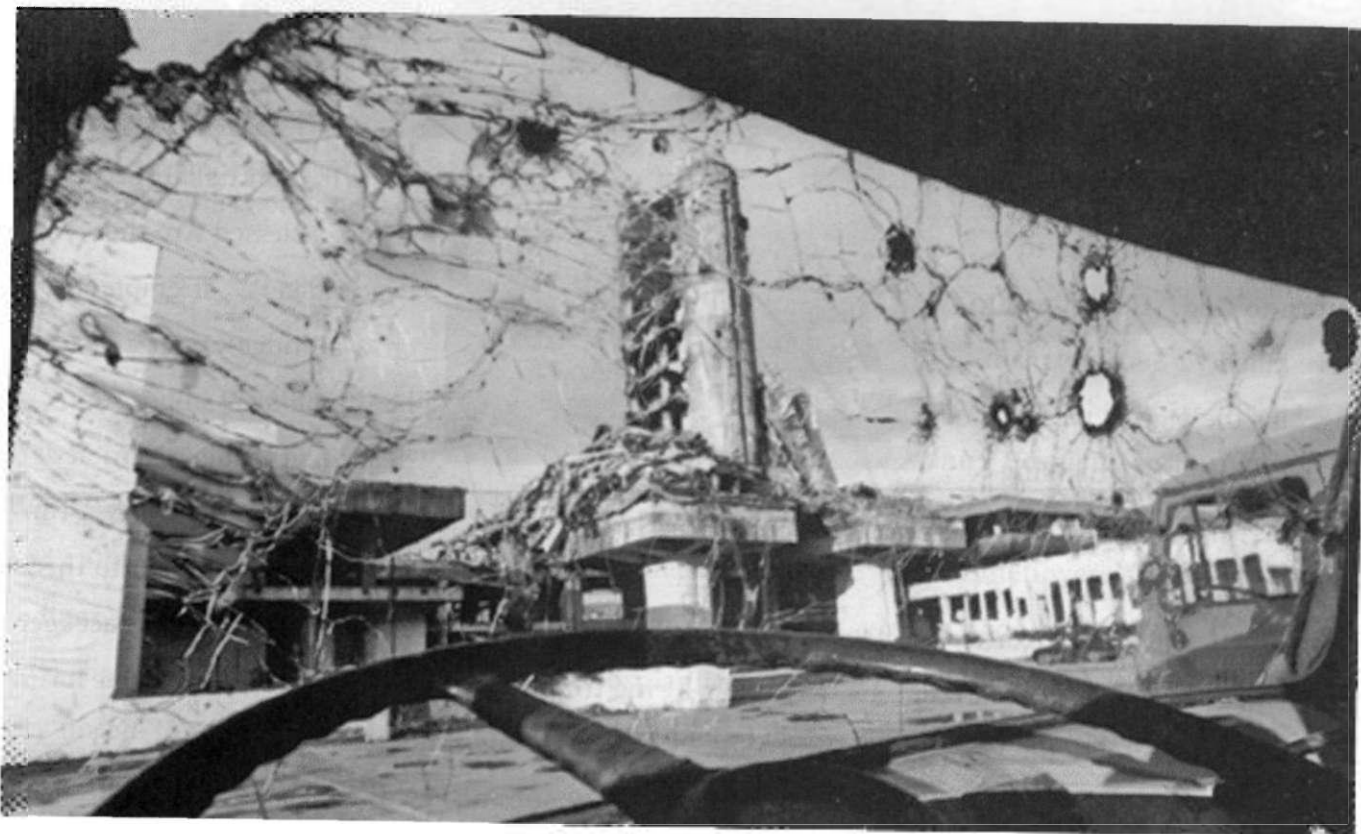
When an Italian pacifist group, "Blessed Are the Peacemakers," attempted to cross a bridge under a peace banner, a Serb sniper shot dead their leader, Gabriele Moreno, sending the rest running for their lives. Into this

cauldron NATO and the UN deployed peacekeeping troops, who soon became fresh targets for the long-range shooters.

By ones and twos, Brits, Americans, French, even Swedes and Ukrainians, fell to snipers.



A French countersniper team searches for Serb gunmen in Sarajevo.



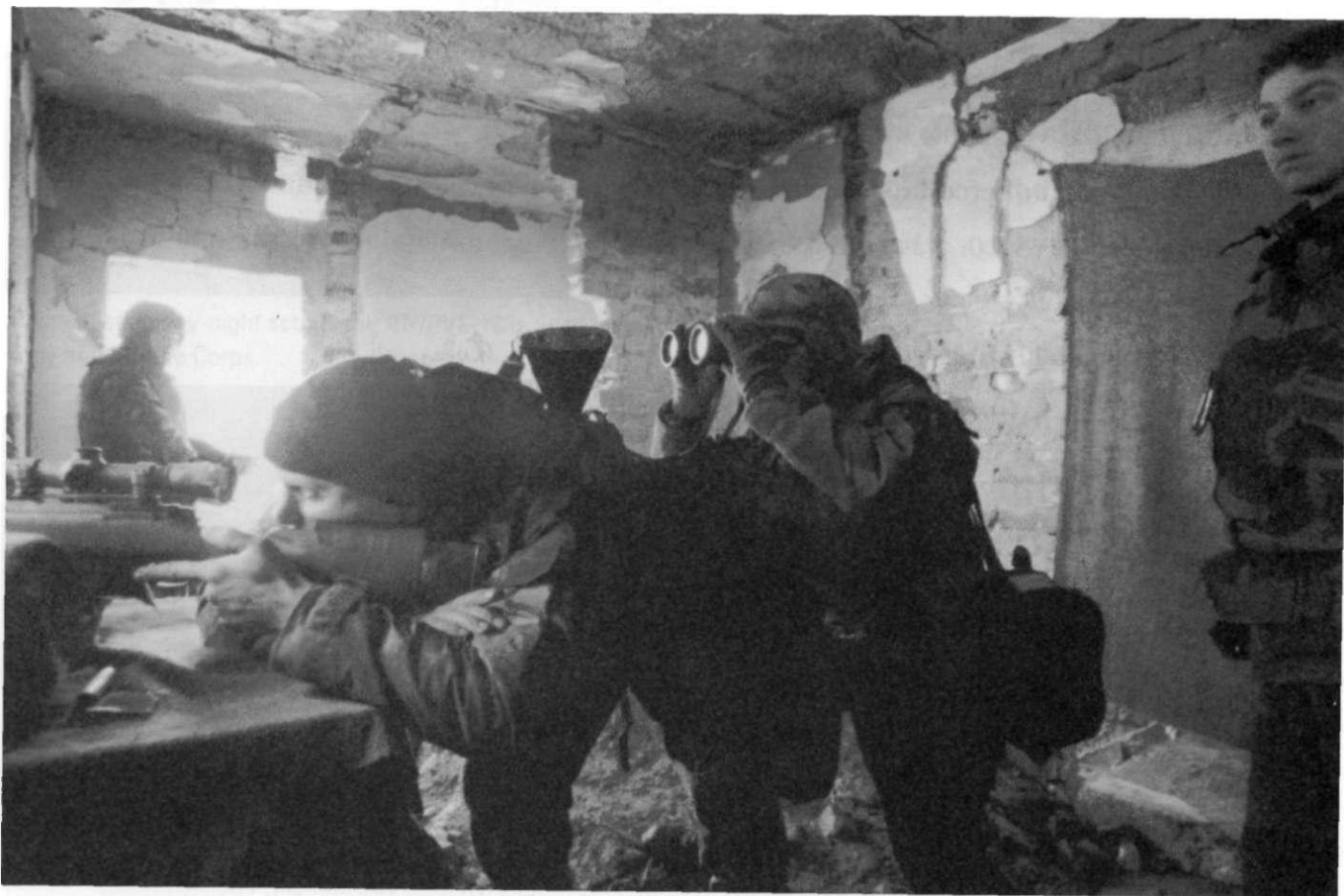
Riddled with snipers' bullets, a NATO truck in Sarajevo.

After a series of sniping incidents, the NATO force commander, U.S. Navy Admiral Leighton Smith, had had enough. Admiral Smith announced “shoot to kill” orders, saying, “If we see somebody pointing a weapon at our forces, he will be attacked without warning.”

With that, NATO countersnipers began hunting and killing or capturing snajperisti. The NATO shooters’ effectiveness improved with intelligence support, such as terrain analysis that tracked bullet impacts and lines of fire to identify likely Serbian sniper positions. Periodic photography of buildings and high ground helped detect subtle changes, such as removed windows, firing ports

cut in walls, and shifted barrier materials. And shooting pattern analysis—times, locations, methods, and targets—created a larger mosaic that gave clues to future sniping incidents.

The most difficult snajperisti were deeply embedded in rubble buildings or behind elaborately positioned concrete blocks, timbers, and sandbags, rendering the 7.62mm and even the .300 Winchester Magnum of limited usefulness. Fifty-caliber sniper rifles offered excellent barrier penetration, but these bulky, heavy weapons were difficult to stalk, climb, or run with. The ideal weapon for taking out Sarajevo’s barricaded gunmen, NATO snipers found, was the .338



U.S. Army snipers surveil from a rubble building in Bosnia. (Courtesy of Dwight Swift.)

Lapua Magnum, whose cartridge offered ballistic capabilities midway between the 7.62mm and .50 caliber. The size and weight of bolt-action .338s, such as the Sako TRG-42 and Accuracy International AWM, were not much larger than 7.62mm rifles, making them especially handy.

Sniping tapered off in Sarajevo but never ended entirely. In June 1999, U.S. Marine snipers with the 26th Marine Expeditionary Unit killed one Serb sniper and wounded two others. And as recently as March 2004, an ethnic Albanian sniper made the mistake of firing on French peacekeeping troops, who immediately rushed his apartment building, cornered him, and shot him dead.

ADVANCES IN NIGHT VISION SCOPES

By the mid-1970s, a second generation of passive night vision devices had been fielded. Compared to Vietnam-era Generation 1 devices, the newer scopes doubled a night sniper's range to perhaps 250 yards in the light of a half-moon. In the early 21st century, this range doubled again with Generation 3 devices, and for the first time night vision scopes allowed engagements at distances commensurate with a sniper rifle's capabilities.

By then, night scopes had evolved into distinct categories of devices. The stand-alone, sole-purpose night sight—like Vietnam's PVS-2 and the Generation 2 PVS-4—gave way to multifunction and modular units that offered more flexible employment. The newest U.S. military sniperscope, for example, the AN/PVS-10, was both a day and night scope and remained on the rifle for all shooting situations.



The newest modular concept, an in-line rail with an AN/PVS-22 Universal Night Vision Adapter.

The Simrad night vision device attaches to a scope's objective lens.



A combination day-night scope, the AN/PVS-10 is used by the U.S. Army and Marine Corps.



PAS-13 Thermal Weapon Sights on an M4 Carbine and Barrett M107.

Meanwhile, modular units were developed that transformed a mounted daytime scope into a night scope. The first of these was the Norwegian-designed Simrad, which attached to a sniper scope's objective lens to convert it into a high-quality, night-viewing system. From this concept evolved the Universal Night Scope (UNS), a Generation 3 device that mounted forward of any daytime rifle optic to allow its use at night. Designated the PVS-22, this unit clamped on an extended scope mount, called a Picatinny rail, so it was directly in-line with the daytime optic. Thus, this class of optics and its mount were referred to as "in-line."

Thermal weapon sights evolved, as well. Similar to aircraft forward-looking infrared (FLIR), these sensed tiny temperature differences and assigned shades to objects according to what was hottest and coolest. The resulting ghost-like images resembled a photographic negative. Most impressively, these sights could "see" through thin foliage as well as rain and snow, as important in daylight as in darkness. The U.S. Army's PAS-13 Medium Thermal Weapon Sight (MTWS) was compatible with 7.62mm rifles, allowing engagements to 1,100 meters. The Heavy Thermal Weapon Sight, intended for .50-caliber weapons, offered a maximum range of 2,200 meters.

Laser Illumination

Paralleling the evolution of night vision devices has been a family of nonvisible wavelength laser pointers and illuminators that have proven a tremendous aid to shooting and signaling at night.

Of two basic types, one infrared laser is purely an aiming device, projecting a thin invisible beam that glows brightly for night vision goggles. Its brilliant glowing dot allows accurate M16 shooting to about 300 yards. Another infrared laser pointer-illuminator enables the soldier to widen the beam and increase its output, acting as an invisible spotlight. Fulfilling the same role as the infrared Pink Light spotlights in Vietnam's Mekong Delta (see Chapter 15), this additional infrared light extends the range of night weapon sights, allowing identification and engagement of targets at considerable distances.

An even more powerful unit is the U.S. Ground Commander's Pointer-IR, a device the size of a candy bar whose invisible 100-milliwatt laser adds an amazing amount of infrared light. Having used one myself, I'm confident that its intense beam can illuminate a man-size target at well over 1,000 yards, allowing engagement with a Generation 3 night vision device. However, just like infrared lights in the early days, infrared lasers can be seen by anyone with a night vision device.



On low power, this infrared laser pointer-aimer is used for night engagements.



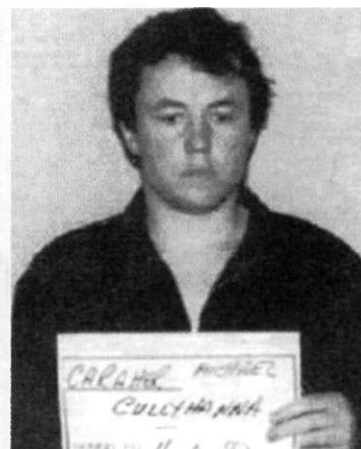
Invisible to the naked eye, an infrared laser spotlight illuminates targets for long-range shooting.

Snipers of the IRA

Terrorist snipers of the Irish Republican Army (IRA) conducted a lengthy sniping campaign in Northern Ireland during the 20th century that paralleled its more publicized bombings. I studied 28 years of IRA sniping incidents, from 1971 to 1997, to discern the terrorists' patterns of victims, tactics, and techniques so that I might better advise countersnipers. Not only are these IRA patterns reminiscent of what later emerged in Iraq, but also the insurgents there may well have studied or been influenced by the IRA snipers.

Of 222 documented cases of lethal IRA sniper attacks, roughly half, or 126, were directed at British soldiers and marines. The other 96 victims were civilians or members of the Royal Ulster Constabulary and Ulster Defense Regiment.

Much like Iraq, most of the 126 lethal attacks on British soldiers and marines appeared to be opportunistic—the IRA riflemen hunted or ambushed British patrols—although some early attacks deliberately targeted British troops at predictable fixed locations.



Irish Republican Army sniper Michael Caraher had served just 16 months of a 105-year sentence when he was released in 2000.

Sniper Victim's Location/Situation

Leaving a Known Base or Security Office
Inside a Known Base or Security Office
Manning a Vehicle or Pedestrian Checkpoint
Operating as Stationary Security
On Dismounted Patrol
On Mobile Patrol/Aboard Vehicles

Fatalities/Incidents

9
7
7
2
70
28

The great majority of fatal sniper attacks occurred between 1971 and 1982, with more than half of all fatalities in the first four years. Sniper attacks on and near bases and offices ceased early in the campaign, when security was improved.

British snipers, fielded in strength after 1971, took a toll on IRA gunmen, killing 23 between 1972 and 1988, including three IRA snipers shot in 1973, 1986, and 1988. These British snipers faced real hazards, with two lost to IRA shooters in 1972 and 1973.

As the sniping campaign evolved, IRA shooters adapted imaginatively. In 1992, a team of four IRA snipers in South Armagh modified a Mazda 626 automobile to use it as a portable shooting hide. Much like the later Washington, D.C., gunmen and terrorist snipers in Baghdad, the sniper was hidden in the trunk and fired through an inconspicuous aperture. The IRA vehicle-borne snipers, however, employed a second vehicle for spotting and security, coordinating their efforts by radio. What made the team especially dangerous was its armament: a .50-caliber Barrett semiautomatic sniper rifle, with which they made their first kill on St. Patrick's Day, 1993. Shortly after their final attack in 1997—by which time they'd killed a dozen British soldiers—they were apprehended and their .50-caliber rifle seized. Sentenced to 105 years in prison, they were released, along with other jailed IRA terrorists, on 28 July 2000, as part of the amnesty that ended the conflict.

SNIPING IN AFGHANISTAN AND IRAQ

Unlike any previous major conflict, the surprise attack on America of 11 September 2001 found a fully matured, sophisticated sniping capability—weapons, snipers, and infrastructure—ready to meet this unexpected challenge.

SNIPING IN AFGHANISTAN

Within weeks of al-Qaeda's attack, U.S. Army Special Forces (and later conventional military) units landed inside Afghanistan. American and allied snipers soon found themselves shooting in some of the world's tallest mountains, the Himalayan Hindu Kush. This proved a challenging shooting environment,

with some peaks a third taller than the Colorado Rockies.

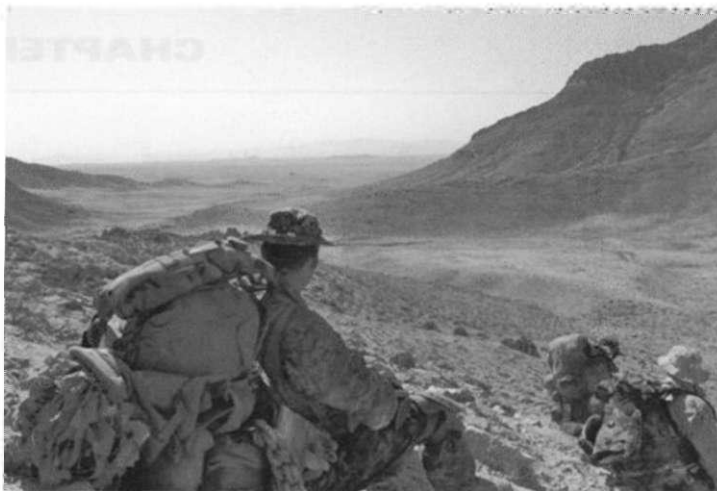
The country's immense, treeless valleys allowed unlimited long-range observation, while narrow defiles and steep cliffs lent themselves to ambush. Staff Sergeant Matthew Blaskowski, an Army scout-sniper wounded in the remote Arghandab Valley, told interviewers his unit was "surrounded by walls, steep cliffs." From atop them, Taliban shooters poured fire on the scout-snipers, Blaskowski recalled. "It was a very uncomfortable feeling."

In some situations, 7.62mm weapons seemed inadequate, causing snipers to prefer heavier rifles, such as the .50 caliber and .338 Lapua. It was a heavy Lapua rifle with which British Royal Marine Commando Dallas Turner engaged a

Taliban officer at more than 1,000 meters in Helmand Province. Having fired a similar distance the day before, his rifle was perfectly on the mark, drilling the Taliban leader with the first shot.

Shots beyond 1,000 meters, very typical for Afghanistan, demanded the most sophisticated ballistic calculations. A bullet's time of flight—2.3 seconds for a .50-caliber slug at 1,500 yards—varied a tiny amount depending on whether a sniper

was firing with the earth's rotation or angled away from the equator. The earth's rotation also caused the Coriolis effect, which is a bit like putting spin on a curveball; it is not enough to matter at 1,000 yards, but its influence grows with range. A headwind very slightly increased bullet drag and reduced velocity, while a tailwind did the opposite. Air pressure mattered, too: thinner air at high alti-



Afghanistan's immense valleys and huge mountains made for challenging shooting conditions.



Special software and handheld computers allowed precise calculations for long-range shooting.

tude made a bullet fly faster and flatter. Ammo temperature, with warmer gunpowder burning a bit faster, resulted in higher muzzle velocity. Nuances in up/down angles mattered, as did the precise height of a reticle above a rifle's bore. Some teams carried new, cutting-edge, handheld computers that considered this litany of factors for calculating long-range shots; other snipers relied on the old-fashioned stubby pencil, along with trial and error.

Such was the case for a Canadian sniper team that spotted an al-Qaeda fighter in Afghanistan's remote Shahi Kot Valley in 2002. The team, with the 3rd Battalion, Princess Patricia's Light Infantry—the same unit as Tommy Prince's, the famed Indian sniper of World War II and Korea—fortunately had one of Canada's new McMillan .50-caliber sniper rifles, topped by a Leupold 16x scope. The spotter's Leica

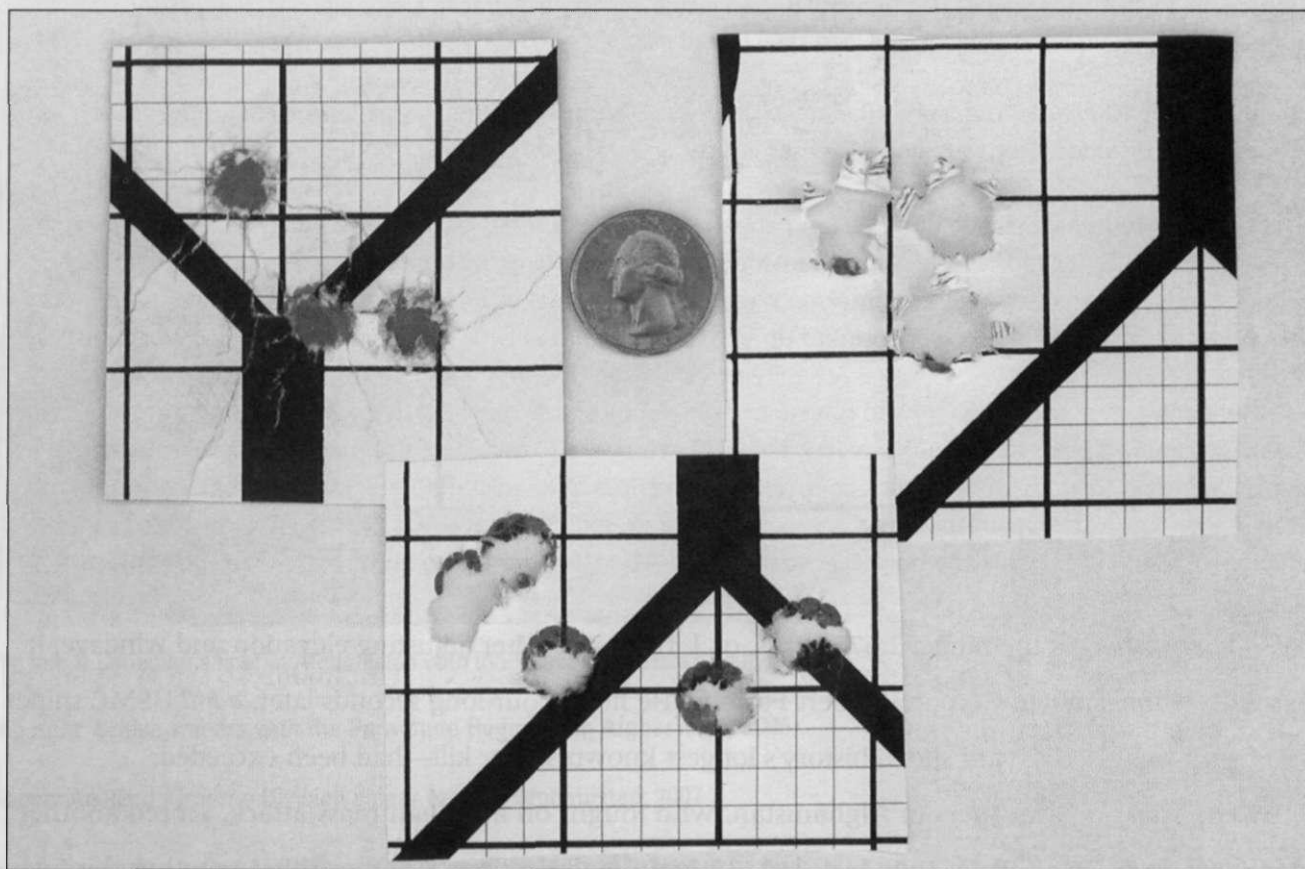
Modern .50-Caliber Cartridges

The improved accuracy and terminal effect of .50-caliber rifles has as much to do with advanced projectiles as the rifles themselves. Until the 1990s, .50-caliber ammunition had not improved since World War II, when the only sniping rounds were standard military ball, tracer, and armor-piercing.

Match-grade projectiles, developed by competitive marksmen with the Fifty Caliber Shooters Association, demonstrated that heavy rifles could deliver impressive accuracy. In addition to the commercial Barnes match bullet, private parties perfected machine-turned slugs of solid brass or leaded steel to incredibly high tolerances. Firing a leaded-steel projectile, in 1999 civilian marksman Skip Talbot fired a world record 5-shot, 2.6-inch group at 1,000 yards. His rifle was a custom-built McMillan bolt action.

In 2005 I fired several test groups from a semiauto M107 Barrett .50 caliber, shown in the accompanying photograph. The first group (upper left), fired with Barrett's 661-grain load at 100 yards, measured just 1.41 inches, center to center. Backing off to 200 yards, I fired another group using bronze alloy match bullets (upper right), yielding a 1.965-inch group, or less than 1 minute of angle.

As a more complex test, I fired a rapid-fire, 5-round group in less than 10 seconds (bottom) to simulate pounding away at an approaching vehicle or punching into a barrier to defeat a hostile gunman. That 5-round



Three test groups fired with the Barrett .50 caliber at 100 and 200 yards.



Modern .50-caliber loads include (left to right): Barrett match, military ball, tracer, armor-piercing, Raufoss Mk. 211, bronze turned match, Barnes match, and lead steel turned match.

string, fired at 100 yards, measured 0.95 inch vertically—surprisingly true—and 2.16 inches horizontally, resulting, I concluded, from my finger's unfamiliarity with the Barrett's 5 1/2-pound trigger pull.

The .50's terminal ballistic effect leaped ahead with development of the Norwegian Raufoss round, known in the U.S. military as the Mark 211 Model 0. This exploding, 671-grain, armor-piercing projectile contains a tungsten carbide penetrator, making it especially effective against materiel targets and light armored vehicles. The Raufoss round will penetrate up to 1/2-inch of armor at 1,100 yards.

Reflecting its modern design and quality of manufacture, the Mark 211 Model 0 is also the most accurate .50-caliber military round in the world, firing on average a 3- to 4-inch group at 600 yards from a test barrel, although the U.S. government considers a 6-inch group an acceptable standard. It has performed so well in Iraq and Afghanistan—where Canadian snipers fired it for a new world record in long-range combat sniping—that it's practically the only .50-caliber round Allied snipers fire today.

Geovid laser displayed the range: 2,675 yards, or 1 1/2 miles. After adjusting elevation and windage, it was all up to the shooter, Corporal Robert Furlong. He fired. Four long seconds later, *a hit!* USMC sniper Carlos Hathcock's 2,500-yard shot—history's longest known sniper kill—had been exceeded.

Two Special Forces snipers in Afghanistan, who fought off a Taliban mass attack, scored another potential record. Firing Black Hills Mk. 262, 77-grain loads in their 5.56mm rifles, together the two shooters reportedly accounted for an incredible 75 kills with 77 rounds.



Top left: A Canadian sniper in Afghanistan with the Princess Patricia's Light Infantry.

Top right: British snipers with the Parachute Regiment in Afghanistan, 2006.

Above: An 82nd Airborne Division sniper team in Afghanistan, 2007

Right: The author with a McMillan .50-caliber rifle identical to that used by Canadian snipers to fire a world-record shot in Afghanistan.



Al-Qaeda Snipers

Though allied forces encountered a few snipers in Afghanistan, the enemy sniper effort there was not anywhere near the scale of Iraq. Partially, this was explained by terrain and engagement distances.

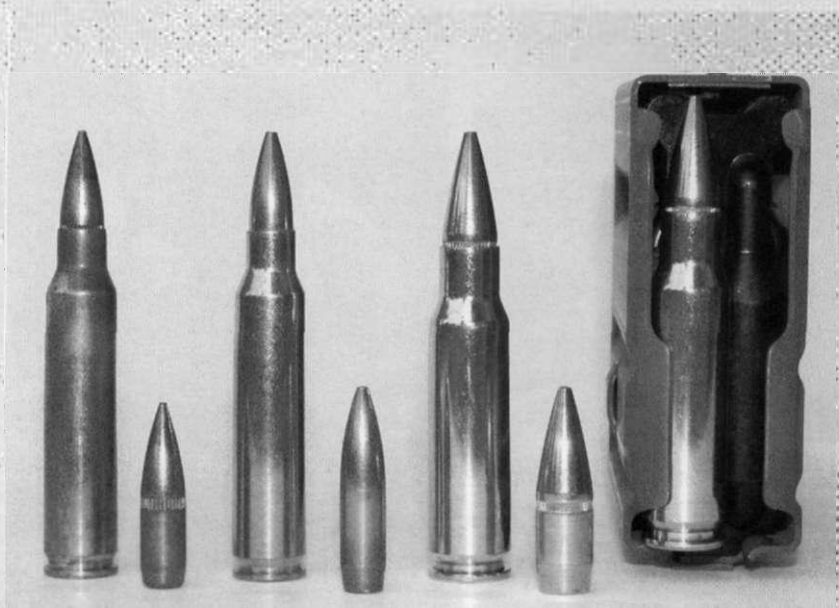
The Afghan Taliban, when they chose to fight, preferred to engage at 1,000 or more yards using mortars and heavy machine guns rather than rifles. As well, the Taliban, whose members boasted of their rejection of the modern world, may have lacked the education, sophistication, and inclination to learn the ballistics and optical adjustments required for long-range rifle shooting.

This isn't to say that their ideological cousins, the al-Qaeda terrorists, had no use for sniping. It was documented that al-Qaeda had sniper training, confirmed by a detainee at Guantanamo Bay's

The 6.8mm Special Purpose Cartridge

When U.S. Army Special Forces troops took on Taliban and al-Qaeda fighters in Afghanistan in 2001, many reported that their M4 carbines and M16s were not as lethal as advertised; well-placed shots appeared to pass completely through the enemy instead of quickly incapacitating them. The problem, many thought, was the M855 62-grain, 5.56mm bullet, which also proved to be inaccurate at longer ranges.

To boost the 5.56mm round's performance, U.S. Army Special Operations Command contracted with Black Hills Ammunition to develop a 77-grain, match-grade load, designated the Mark 262. Not only did this 15-grain-heavier projectile improve lethality, but it also provided sniper-quality accuracy and proved less susceptible to wind drift.



Lethal loads (left to right): 5.56mm, 62 grain; the Black Hills M262, 77-grain; 6.8mm, 115-grain; and 6.8mm in an M16 magazine.

The second solution was an entirely new round, the 6.8 x 43mm Special Purpose Cartridge. The brainchild of Master Sergeant Steve Holland, the 5th Special Forces Group's highly respected sniper chief, its development began with a search for a larger cartridge case to increase powder capacity. This new round could not exceed the 5.56mm's overall length and had to feed in the M16 and M4 while still allowing a sizable number of rounds in a magazine. Working with Chris Murray, the research and development gunsmith at the Army Marksmanship Unit, Master Sergeant Holland found that the

obsolete .30-caliber Remington case accomplished all these requirements. In essence, this was a rimless .30-30 cartridge, which they necked down to .277 caliber. Next, working with Remington and Hornady, they developed a 115-grain, boattail, hollowpoint match bullet for excellent long-range performance, and a 110-grain load for improved terminal ballistics at closer range. At 100 yards, the 6.8mm delivered 57 percent more energy than the 5.56mm (1,429 foot-pounds versus 911 foot-pounds). The difference was even more profound at 500 yards, where the 6.8mm struck with more than double the impact of a 5.56mm (204 foot-pounds versus 562 foot-pounds).

Due to the 6.8mm's wider case, a 20-round magazine accommodates about 15 cartridges, while a 30-round holds perhaps 25. However, to ensure smooth feeding, the 6.8mm requires a specially manufactured magazine, the only downside in this innovative adaptation.

With these magazines, all a shooter needs is a 6.8mm upper assembly (with bolt) to convert his receiver to the 6.8mm. In 2005 Barrett Firearms began producing complete 6.8mm rifles (the Model 648), while several manufacturers were producing 6.8mm uppers.

Camp X-Ray, Nizar Trabelsi, who told FBI agents he'd personally observed three-man teams in training. However, these teams were recruited and trained for attacks overseas, particularly inside the United States. Their graduation exercise simulated assassinating a U.S. senator on a golf course. By early 2002, al-Qaeda and its sniper teams had largely abandoned Afghanistan.

In February 2005, the FBI apprehended Mohammed Kamal El-Zahabi, a Lebanese citizen, in Minneapolis, Minnesota, who admitted he'd been a sniper in Chechnya and had instructed at al-Qaeda's Khalden sniper training course in Afghanistan. Where his graduates went is anyone's guess.

SNIPING IN IRAQ

The initial invasion of Iraq, as in the Gulf War of 1991, did not generate much infantry fighting or much sniping. Significant sniper missions did not materialize until after the capture of Baghdad, when insurgents began planting improvised explosive devices (IEDs) and explosively formed penetrators (EFPs) along the roads.

Countering IEDs and EFPs

Due to their stalking and observation skills, Army and Marine sniper teams became heavily employed in the counter-IED surveillance role. Most such missions were clandestine—that is, teams that inserted in darkness or as stay-behinds when a larger patrol passed through, and stayed hidden. When they detected suspicious or hostile activity, they called in a reaction force so

Semiautomatic Sniper Rifles Reemerge

When the U.S. Army's M14-based M21 Sniper System was replaced in 1988 with a quality bolt-action rifle, many shooting authorities thought the era of the semiauto sniper rifle was over. The complexities of constructing and maintaining a semiauto precision rifle, with its moving parts and variances in cycling, made it difficult (and expensive) to achieve consistent performance. But a great deal had been learned accurizing M14s, both by military armorers and civilian builders, such as Springfield Armory. As knowledge grew, so did reliability, accuracy, and durability.

Thus, many M21s were brought out of mothballs, refurbished, and topped by new rifle scopes as armament for Designated Marksmen in Iraq and Afghanistan, where their 7.62mm rounds offered twice the range of the M16's 5.56mm round.

This renewed interest in a 7.62mm semiauto sniper rifle led, in 2005, to the U.S. Army selecting a new match-grade semiauto, the XM110 SASS, or Semiauto Sniper System, for the Special Operations community. The benefits of a semiauto were well understood: faster follow-on shots, larger magazine capacity, quicker reloading, and an effective rate of fire for close-range



The Army and Marine Corps have acquired versions of this Knight's Armament 7.62mm semiautomatic sniper rifle.

defensive fights. The winning contender was a new version of the Knight's Armament SR-25, which had been designed by the legendary Eugene Stoner, whose previous rifles included the AR-10, AR-15/M16, AR-18, and Stoner 63 Weapons System. Already the SR-25 was guaranteed to fire 1-inch groups at 100 yards, and one specially tuned version, the Mark 11, Model 0, had been adopted by the U.S. Navy SEALs.

Appearing to be an M16 on steroids, the XM110 incorporates a match-grade trigger and barrel, a Picatinny rail above the forearm for mounting in-line optics, and a quick-attach suppressor. It's supplied with 20-round magazines. The SASS reached Afghanistan in early May 2007, where it saw its first action with the Special Ops Task Force Fury.

The USMC has selected a nearly identical version of the SASS as its new Squad Advanced Marksman Rifle, or SAM-R, to put an accurate 7.62mm scoped rifle in every squad. The SAM-R is topped by a Schmidt & Bender scope similar to that found on the Marines' M40A3 sniper rifle.



An American .50-caliber sniper team overwatches the Tigris River near Mosul, Iraq.



Navy Petty Officer Jeff Pursley (right) and Marine Corporal Olen Thyssen watch for IED teams on an Iraqi highway.

they could continue observing secretly.

British snipers worked this counter-IED effort, too, similarly inserting clandestinely. Sergeant Eddie Waring, a sniper with the Irish Guards, took out three insurgents near Basra who were attempting to plant roadside mines.

U.S. Marine snipers proved quite adept at countering insurgent bombers.

In August 2004, Sergeant Joshua Clark and Navy

Petty Officer Third Class Jeff Pursley, a medic, observed two vehicles halt at night to plant a bomb inside the stripped remains of a car. While the insurgents unrolled detonation wires, the Marines stalked forward and fired, forcing several insurgents to flee, capturing one.

Four months earlier, another Marine sniper team on a counter-IED mission, led by Staff Sergeant Steve Reichert, spotted a dead animal



British Black Watch snipers watch for insurgents planting IEDs near Basra.



Detonation wires dangling from it, this abandoned car was rigged as an IED.

just ahead of a Marine patrol.

Reichert studied the carcass with a spotting scope and noted, "I could see the slight reflection of wires coming out of the animal." As he radioed a warning, insurgent ambushers opened fire and pinned the Marine squad. The deadliest fire came from a distant 12.7mm machine gun, a target so far away that Reichert turned his own .50-caliber

Barrett rifle toward it and fired. The first

shot missed, but his spotter helped him correct so Reichert's second shot—an explosive Raufoss slug—hit the gunner. When a lieutenant later calculated the distance, it measured 1,614 meters—more than a mile.

Countering Long-Range Attacks

Sniper teams in Iraq also proved adept at interdicting insurgent mortar teams, RPG rocke-

The Russian SVD and Other Iraqi Sniper Rifles

The Russian SVD was the first military rifle designed solely as a sniper weapon. This 10-shot semiauto, with its distinctive hollowed buttstock and lengthy barrel, was designed by Yevgeniy Dragunov, after whom it was named: *Snayperskaya Vintovka Dragunova* (Dragunov Sniper Rifle).

Although the rifle was fielded in 1967, Western forces did not encounter it in a substantive way until the 2003 Iraq invasion and subsequent combat with insurgent snipers. It fires the same 7.62 x 54mm cartridge as the Mosin-Nagant sniper rifle, whose ballistic capabilities were addressed in previous chapters. An exotic appearance has contributed to the SVD's mystique, causing Lieutenant Colonel Moe Elmore, 5th Special Forces Group deputy commander, to observe that "people [mistakenly] thought the Dragunov fired some extraordinary cartridge that gave it almost super powers of accuracy, range, and terminal effect."

Actually, having test-fired it, I found the SVD comparable in accuracy to an M1D sniper rifle, with a similar maximum range of about 600 yards. Like the M1D, its underpowered 4x PSO-1 scope helps explain that limited range, although the best SVD groups I fired measured about 2 inches at 100 yards, or about 2 minutes of angle. When I was chief of competition for the 1998 European Sniping Championships, six competitors fired SVDs—and consistently shot the lowest scores.



The SVD rifle and its variants have been manufactured in the hundreds of thousands and can be found throughout the world.



Many Iraqi snipers use a local version of the SVD, the al Kadesih rifle.

Iraq's insurgent snipers inherited a plentiful supply of Soviet SVD sniper rifles and its Iraqi-built version, the al Kadesih rifle. In many ways the al Kadesih is identical to the SVD, its most distinctive difference being the absence of a cheek rest. Its accuracy is comparable to—or slightly less accurate than—its Russian SVD cousin.



The locally built Tabuk rifle is actually a modified AK.

The Iraqi insurgents' supply of SVD and al Kadesih rifles appeared to be drying up by 2007, when other less capable sniper weapons began to appear there. The first was the locally built Tabuk sniper rifle, which combined an AK receiver with an SVD or Yugoslavian M76 barrel, and topped it with a PSO-1 scope. Firing the AK's less powerful 7.62 x 43mm cartridge, this firearm actually represented a decline in range and lethality, and likely reduced accuracy, too. The other new sniper weapon appearing in Iraq was a scoped version of the SKS Simonov carbine, also firing the AK round, a choice undoubtedly driven by a shortage of true sniper rifles.



An American soldier with a scoped SKS, taken off an Iraqi sniper.

During the same time frame, however, some more capable sniper rifles were captured from Islamic militants, suggesting that at least limited efforts were under way to acquire and supply such advanced weapons (see "The Emerging Threat of Terrorist Snipers," page 654).

teers, and heavy machine gunners. Particularly, the insurgents attempted to exploit darkness to approach American installations and inflict casualties from so great a distance that they could fire and safely escape.

U.S. Army Sergeants Daniel Osborne and Cyrus Field demonstrated what snipers could do against such attackers when they took on an insurgent .50-caliber machine gun that had repeatedly attacked a U.S. base near Baghdad. From a four-story roof, they spotted the machine gunners some 800 yards away and, using night vision devices, simultaneously fired their M24 rifles. Two Iraqis fell at the machine gun, and two others turned to run. Osborne and Field ran their bolts and again fired simultaneously, and the last two insurgents fell. In less than 10 seconds, they'd dropped the entire gun crew.

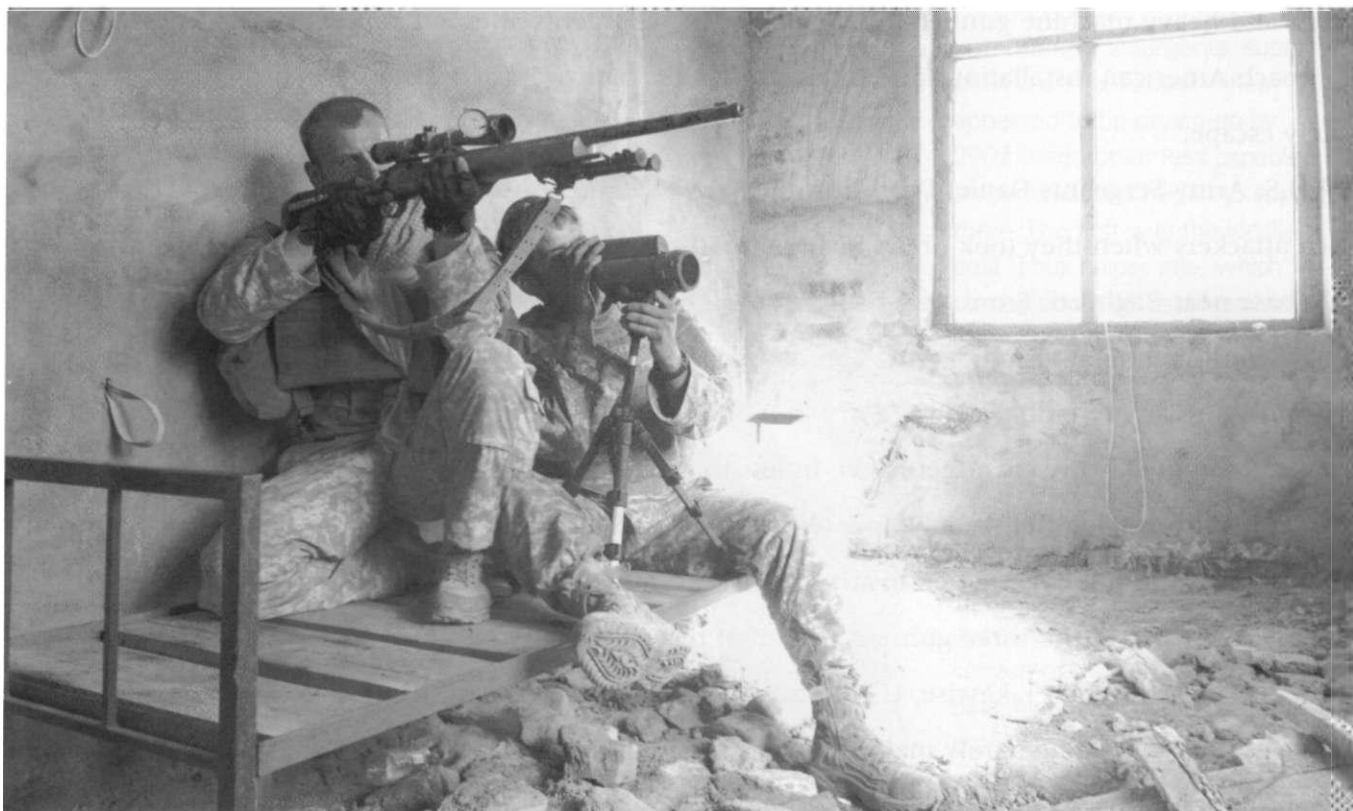
On 9 June 2004, a four-man sniper team from Charlie Company, 3rd Battalion, 153rd Infantry, after hiding for a full day, spotted insurgents firing a 60mm mortar into an American installation. The snipers killed two of the three gunners and then recovered the mortar, a quantity of ammo, and a loaded RPG-7 launcher. Likewise, U.S. Army Specialist Fourth Class Ryan Cannon, with the 82nd Airborne Division, could barely make out an insurgent mortarman in the darkness, some 500 yards away, about to drop a round in his tube. Then the Iraqi puffed on a cigarette, just enough glow to make him out, and—*bang!* Another indirect fire attack stopped dead.



An Army sniper watches for insurgents in Baghdad.



An Irish Guards sniper watches for long-range threats in southern Iraq.



An Army sniper team uses an abandoned house to watch clandestinely for insurgents.



A 3rd Infantry Division sniper team covers a major supply route in Iraq.



Marine snipers Adam Scheele (left) and Sean Little watch for insurgent infiltrators in Iraq's western desert.

Some such engagements evolved into larger affairs. Air Force General Richard Myers, Chairman of the Joint Chiefs of Staff, told Pentagon reporters that after a U.S. sniper team wounded two insurgent mortarmen, they followed their blood trails to a nearby compound. Inside, a Reaction Force captured 12 insurgents, which inspired a larger search that netted two truck bombs in the final stage of assembly.

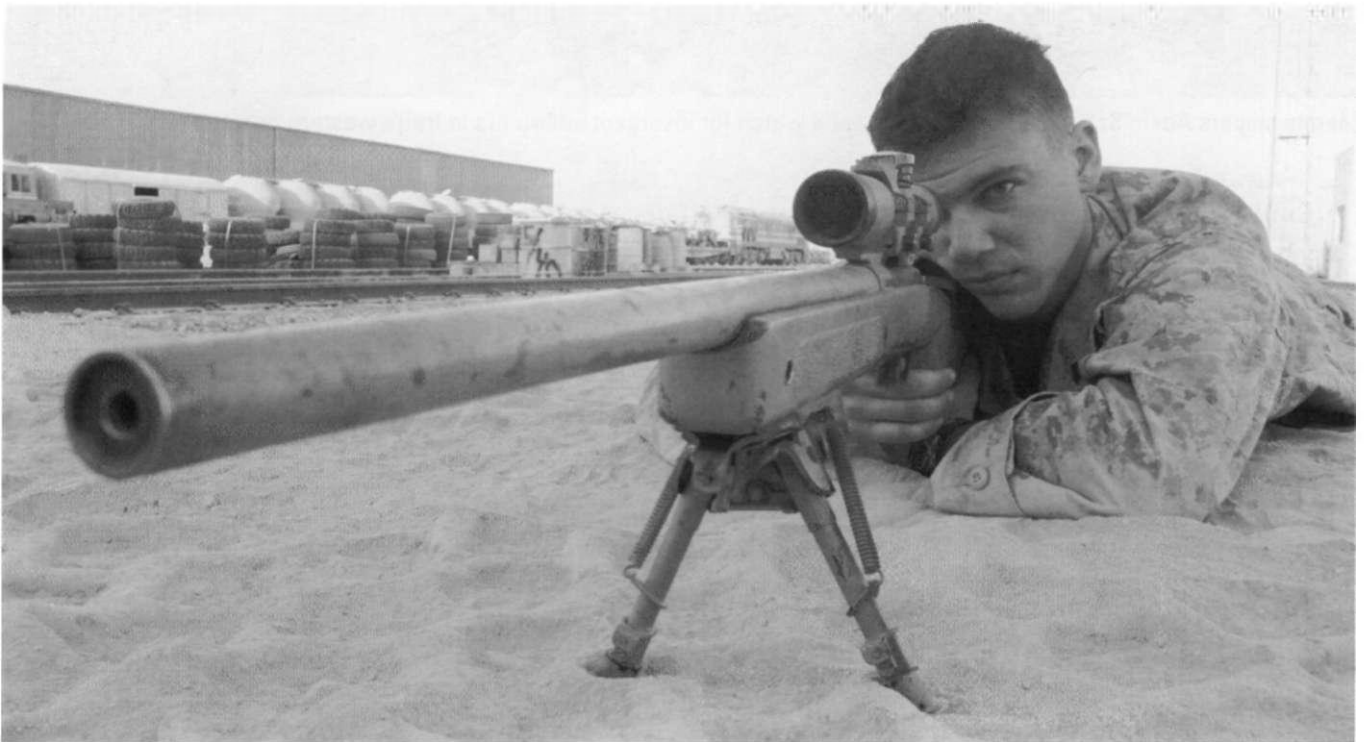
Snipers Slots Increase

American snipers in Iraq and Afghanistan had so well proved their worth—at countering IEDs, detecting otherwise unseen insurgents, and making precision shots without injuring bystanders—that field commanders requested more of them. To help fill this growing need, Designated Marksmen were placed in squads and platoons (see “Designated Marksmen,” page 635).

The number of authorized snipers increased, too. Before the attacks of 2001, the U.S. Army authorized three two-man sniper teams per battalion in Airborne and Light Infantry divisions and four teams in Mechanized Infantry battalions. After two years of fighting in Afghanistan and Iraq, many units added a third man with a Barrett .50 caliber to each sniper team, plus a fourth nonsniper to improve security and add another pair of eyes for observation. The 7th Infantry Division *tripled* its sniper complement in 2004, fielding 18 sniper teams per battalion. Each 12-man U.S. Army Special Forces A-Team sought to cross-train at least two men as snipers. The U.S. Marine Corps, too, boosted its reliance on snipers, adding slots to its traditional 17-man, battalion-level Surveillance and Target Acquisition (STA) platoons. And each Army Ranger battalion by 2005 had slots for 40 snipers. To meet this growth, both the Army and Marine Corps expanded their sniper training programs.

Some Impressive Shots

In Iraq, the improved long-range accuracy of the M118LR round was demonstrated by a number of particularly long-distance shots. Staff Sergeant Jim Gilliland, a U.S. Army sniper, scored what appeared to be the longest successful engagement in Iraq with a 7.62mm rifle, killing an SVD-armed Iraqi at an amazing 1,375 yards with his M24. Not far behind was USMC Corporal Matt Orth, firing an M40A3, who took out a terrorist at 1,256 yards.



USMC Corporal Matt Orth scored a hit at a confirmed 1,256 yards.

Designated Marksmen

Though M16s are not sniper weapons and the recent proliferation of scopes on them cannot make snipers of regular infantrymen, this combination has nonetheless had quite an impact on small-unit combat in Iraq and Afghanistan. Designated Marksmen (DM) outfitted with scoped rifles fill the capability gap between their rifle-armed comrades and fully qualified snipers—or, looked at another way, these Designated Marksmen offer effective fire beyond the range of ordinary riflemen, to about 600 yards.

Many such squad-level marksmen employ Trijicon's Advanced Combat Optical Gunsight (ACOG), a 4x scope with a ranging reticle and hold-over lines. Other Designated Marksmen use a Leupold tactical 3-9x scope with a bullet drop compensator. Army Designated Marksmen have M16A2s, while their Marine counterparts have match-grade, heavy-barreled M16s.

Still more Designated Marksmen are found at platoon level, with one assigned to each Marine and Army platoon. Armed with an accurized M14 rifle, they have either a Leupold M3A scope or the day/night PVS-10 scope.

Though the training is not sniper-qualified, both services provide additional training to its Designated Marksmen, with the Marine Corps course lasting some 23 days. Designated Marksmen have proven invaluable due both to their accurate gunfire and their optical ability to see their surroundings in more detail than ordinary infantrymen.



The 4x ACOG scope is used by squad marksmen.



Top: The Marine Corps Squad Designated Marksman's rifle is a tuned, match-grade weapon.

Above: Accurized versions of the M14 are used by both Army and Marine platoon Designated Marksmen.

Engaging multiple targets, USMC Sergeant Memo Sandoval distinguished himself by firing four shots and drilling three terrorists at 950 yards, one after the other. Sergeant Herbert Hancock, chief scout-sniper with the 1st Battalion, 23rd Marine Regiment, and a full-time Texas SWAT sniper, fired two shots across the Euphrates River to drop two 120mm mortarmen. Later, when a ground party confirmed both of Hancock's one-shot kills, the distance was measured at an impressive 1,050 yards.

With Iraq's protracted fighting, some American snipers were beginning to run up kill counts nearing the records from previous wars. For instance, while fighting in Fallujah in April 2004, Marine Sergeant John Ethan Place scored 32 confirmed kills in only 13 days. While presenting him the Silver Star, the 1st Marine Division commander, Major General Richard Natonski, said Place's



Sergeant Herbert Hancock, a Marine reservist and Texas SWAT sniper, fired two consecutive one-shot kills at 1,050 yards.

unerring fire had so unnerved the enemy that insurgent negotiators pleaded to have Place and his fellow snipers withdrawn while talks were under way. "It's hard to believe," Major General Natonski said, "that one individual could have had such an impact on our combat operations."

New Rifles and Optics

Contributing to such excellent performance was the fielding of updated sniper rifles and optics. In 2004, the Marine Corps distributed the M40A3 version of its venerable, hand-built Remington Model 700s, an upgrade that included a heavier match-grade stainless barrel and a new McMillan tactical stock with an

adjustable cheek rest. Although the M40A3 included a Picatinny mount, this rail did not extend beyond the receiver to accommodate in-line night vision devices, such as the AN/PVS-22. Heavier by 2 pounds, the rifle drew criticism from some established snipers who preferred the lighter A1 model, but there was no criticism of its accuracy, which averaged below 1 inch at 100 yards when firing M118LR ammunition.

Adoption of the M40A3 was soon followed by a new scope, an excellent 3-12x 50mm Schmidt & Bender, carrying a USMC designation of M8541. Called the Scout Sniper Day Scope, it incorporated



The new M40A3 sports a McMillan stock with an adjustable cheekpiece and a stainless match-grade barrel.

an illuminated mil-dot reticle with tiny slashes halfway between dots to allow finer target measurement for ranging. Elevation used a target knob with increments of 0.1 mil (or 1 centimeter at 100 meters) rather than a bullet drop compensator, signaling a desire for greater shooting precision instead of faster (but less precise) engagements. Because of the scope's unique target knob, the shooter was able to achieve maximum elevation (79 minutes of angle) in only two rotations, instead of the five typical for that much elevation. The new scope deployed to Iraq in late 2005.

The Army, too, upgraded its version of the bolt-action Remington Model 700. Working with the gun manufacturer, retired U.S. Army Special Forces Chief Warrant Officer Michael Haugen, a former sniper school commandant, switched to an oversize bolt to simplify manipulation; a new, more adjustable stock; and a detachable box magazine that would allow faster reloading. The rifle's new mount incorporated a Picatinny rail that extended well forward of the receiver, allowing the use of in-line night vision devices.

A very effective suppressor was an optional accessory. The new version was designated the M24A2 Sniper Weapon System.



Gunnery Sergeant Paul Starner with the new 3-12x scope. His sniper platoon, with the 3rd Battalion, 5th Marines, scored the first kill with this scope.

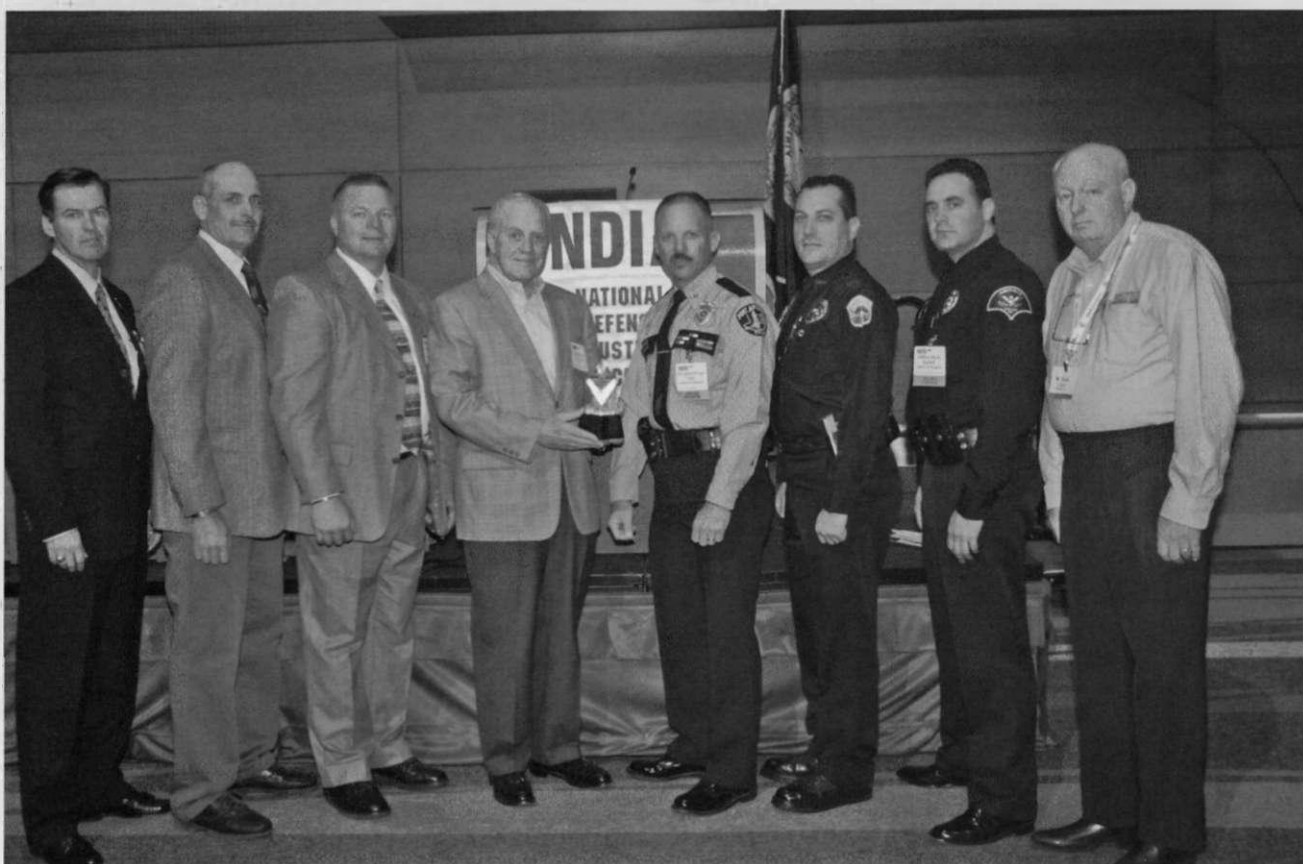


The updated M24A2 features a removable magazine, oversized bolt, more adjustable stock, and in-line Picatinny rail.

Supporting U.S. Snipers

Serving in far-flung, remote areas, American snipers in the global War on Terror sometimes found themselves lacking critical gear that the military logistical system couldn't seem to provide—especially sniper-unique items, such as lens paper to clean their scopes, compact laser rangefinders, M14 magazines, bipods, and camouflage materials.

Learning of this problem, Port Arthur, Texas, police SWAT sniper Brian Sain sought to do something about it. Enlisting the help of SWAT snipers, veterans, and anyone willing to lend a hand, he founded Adopt a Sniper to provide needed gear to his military counterparts all over the world. Operating as AmericanSnipers.org (www.americansnipers.org), by 2007 Sain's group had collected and shipped hundreds of thousands of dollars worth of critical gear to U.S. snipers and designated marksmen serving in more than 425 Army and Marine platoons. Run entirely by unpaid volunteers, this organization provided gear without cost to the deployed snipers. In recognition of their tremendous effort, the National Defense Industrial Association presented this program its 2007 Carlos N. Hathcock II Award, given annually to the individual or group that best emulates Gunny Hathcock's contribution to small-arms training and readiness.



Presentation of the 2007 Carlos Hathcock Award. Left to right: Brian Berger, National Defense Industrial Association (NDIA); Lieutenant Dave Jossart, Brown County, Wisconsin, Sheriff's Department; Douglas Bourdo, Kenosha County, Wisconsin, Sheriff's Department; Major General Barry Bates (USA, ret.), NDIA; Detective Brian Sain, Port Arthur, Texas, Police Department; Officer David Agata, Coral Springs, Florida, Police Department; Mark Ratzlaff, Janesville, Wisconsin, Police Department; and Russ Logan, NDIA.

Targeting U.S. Snipers

Due to the considerable effectiveness of American snipers, in 2004 Iraqi insurgents began targeting them. On 2 September 2004, one of the U.S. Army's finest rifle shots, a specialist fourth class who'd previously served with Fort Benning's Marksmanship Training Unit and who aspired to make the U.S. Olympic rifle team, was ambushed near Kirkuk. After a roadside bomb halted his vehicle, the veteran Army sniper stepped from his vehicle and was shot dead by an enemy sniper's bullet to his head.

In other incidents, Marine and Army snipers were picked off by insurgent snipers while operating in support of platoons and companies. Perhaps most troubling was the growth of insurgent counter-sniper operations intended to wipe out entire U.S. sniper teams.

The first of these occurred on 18 April 2004, in the Al Rashid district, near the Baghdad airport. A three-man sniper team from the 1st Cavalry Division led by Lieutenant Eric Johnson had waited for darkness to occupy an overwatch position in a building under construction. While observing from the fourth-floor rooftop, Lieutenant Johnson noticed civilian vehicles converging. "Cars were pulling up without lights, scooters were coming in and out, and 20 to 30 military-aged Iraqis appeared," he recalled. As Johnson told his radioman to call for a Reaction Force, the arriving Iraqis suddenly opened fire, attempting to overrun the snipers. Johnson was shot through one lung, his back, and his left arm. Friendly forces arrived, compelling the attackers to withdraw. Johnson survived.



First Lieutenant Eric Johnson's sniper team was mass assaulted and almost overrun. He survived three gunshot wounds.

Two months later in Ramadi, 20 miles west of Baghdad, a similar sudden assault by two dozen insurgents succeeded in overrunning a Marine sniper position. These four Marines, too, had been on a surveillance mission, but the aggressive attack and heavy fire were more than they could repel. The insurgent attackers stripped their bodies and then videotaped them for foreign propaganda distribution.

The next such incident also was in Ramadi, on 4 November 2004. This time an eight-man Marine sniper element was crossing a darkened street at 2:30 A.M. when, with no warning, a remote-controlled bomb detonated, killing two and seriously wounding several others, including the sniper platoon sergeant. The Marines had been en route to a surveillance position.

The most publicized attack on American snipers came in August 2005, when two Marine sniper



Above: Masked terrorists pose with the weapons and gear captured from an overrun Marine sniper team.

Right: A Marine examines the recaptured M40A1, retrieved almost exactly two years after its original shooter was killed.

Below: This terrorist sniper van, engaged by Marine snipers, yielded the M40A1 taken off a dead Marine two years earlier.

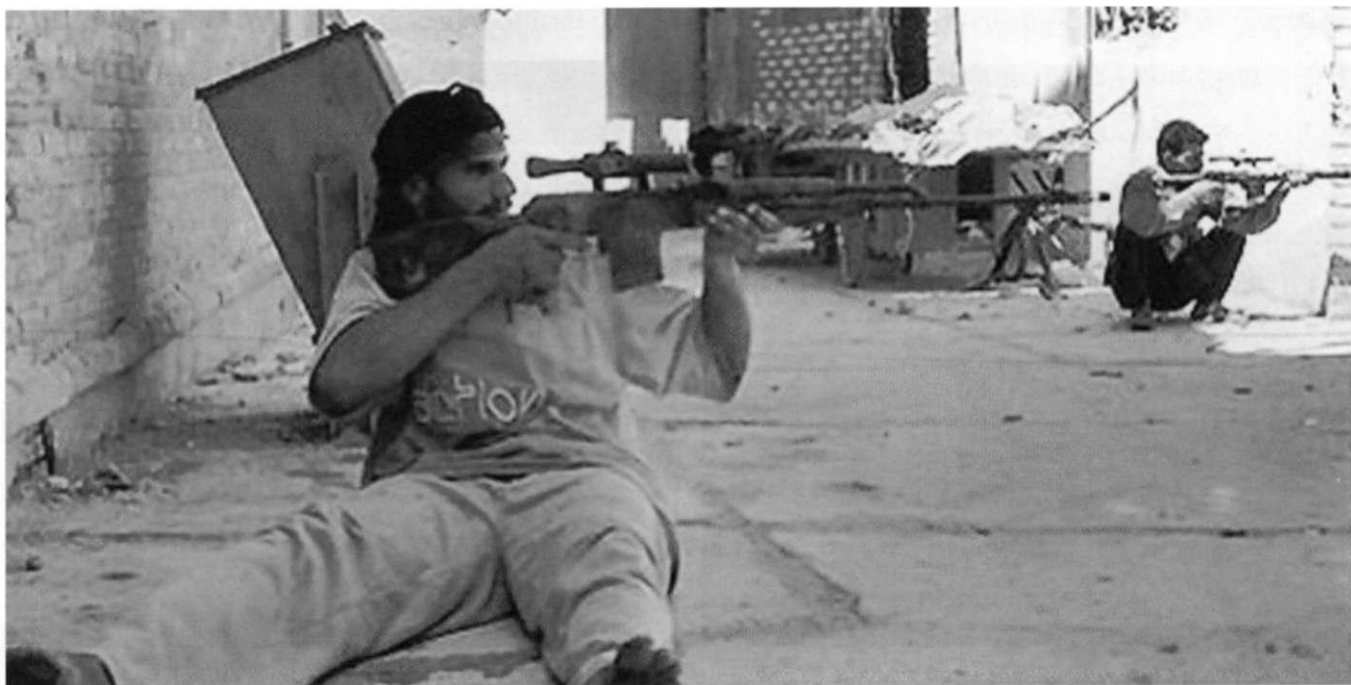


teams, six men, were ambushed and killed near Haditha, 140 miles northwest of Baghdad. Later, the insurgents videotaped a Marine's stripped body and laid out a display of captured gear and weapons beneath palm trees, including two M40A3 sniper rifles.

In all this, however, there was one bit of justice. On 16 June 2006—almost two years to the day after the Marine sniper team was annihilated in Ramadi—a sniper from the 3rd Battalion, 5th Marines, on a rooftop in Habbaniyah, observed an Iraqi in a parked van videotaping a passing American convoy. Investigating through his scope, the sniper spotted a man with a scoped rifle in the van's backseat. Immediately, the Marine sniper shot and killed the insurgent rifleman, while his spotter let loose three quick rounds from an M4 carbine at the video cameraman. Pried from the dead sniper's hands was an M40A1 sniper rifle, one of the rifles taken off the dead Marines in Ramadi. When he learned of it, Lieutenant Colonel Paul Kennedy, who'd commanded the Marines at Ramadi, said, "The very fact that it was one of our snipers that killed theirs trying to use our rifle is poetic justice."

Iraqi Insurgent Snipers

When U.S. forces first arrived in Baghdad in 2003, they'd encountered few hostile snipers, just holdouts from the old regime and untrained shooters who didn't pose a significant threat. Over time, however, as the insurgency and private militias grew—and an ill-conceived U.S. strategy conceded the initiative to the enemy—the quality and quantity of Iraqi snipers grew, too.



A pair of insurgent snipers engage coalition forces in Baghdad.

Iraqi Sniper Target Priorities

Iraqi terrorists often communicate via the Internet, posting messages and setting up temporary Web sites to convey information. In May 2005, an Iraqi terrorist Web site suggested seven duties or target priorities for that country's insurgent snipers. Here is a literal translation of that posting, provided by the U.S. Army:

Seven Duties of a Sniper

1. Target enemy snipers and surveillance teams.
2. Target commanders, officers, and pilots, "that is, to target the head of the snake and then handicap the command of the enemy."
3. Assist teams of *mujahideen* infantry with suppressive fire. These teams may include RPG brigades or surveillance teams.
4. Target U.S. Special Forces: "They are very stupid because they have a 'Rambo complex,' thinking that they are the best in the world. Don't be arrogant like them."
5. Engage specialty targets like communications officers to prevent calls for reinforcements. Likewise, tank crews, artillery crews, engineers, doctors, and chaplains should be fair targets.
 - A tank driver was shot while crossing a bridge, resulting in the tank rolling off the bridge and killing the rest of the crew.
 - Killing doctors and chaplains is suggested as a means of psychological warfare.
6. Take care when targeting one or two U.S. soldiers or [Iraqi] agents on a roadside. "A team of American snipers [may be] waiting for you. They [may be] waiting for you to kill one of those agents and then they will know your location and they will kill you."
7. In the event of urban warfare, work from high areas and assist infantry with surrounding the enemy, attacking target instruments and lines of sight on large enemy vehicles, and directing mortar and rocket fire to frontline enemy positions.



Insurgent snipers have sometimes used civilians as shields, like this Palestinian sniper in Gaza.



Iraqi snipers often fire and flee before a cordon can surround them.



In this propaganda video, an insurgent sniper student fires a Tabuk rifle.

Within a year, there was a serious sniper threat. As had happened in Northern Ireland (see “Snipers of the IRA,” page 617), early sniper attacks focused on places where the insurgents could predictably get shots: at coalition bases, outposts, and official offices. Typical of these targeted sniper attacks were two incidents in Ramadi on 8 and 17 August 2004, which each killed a U.S. Marine. Both victims were manning well-established observation posts and were killed with a single shot to the head.

Not all the victims of the insurgent snipers have been foreigners: Major General Mubdir Hatim al-Dulaymi, one of Iraq’s most senior army officers, was shot dead by a sniper as he left his car in Baghdad.

Explaining his motivation, one Iraqi sniper told the *London Sunday Times*, “When I snipe at my target and watch him drop, I feel elated—dizzy with ecstasy. I fall on the ground, shouting to God, calling *Allah akbar*, for God is indeed great. When their snipers kill one of us, we go to heaven as martyrs. But when we kill them they go to hell.”

The growth of insurgent sniping reflects their inability to defeat U.S. forces in direct combat, shown by their devastating losses in Fallujah in November 2004. Instead of directly confronting coalition forces, insurgent leaders switched to an “economy of force,” using IEDs and snipers to inflict

casualties at minimal cost. To propagandize these attacks, hidden insurgents videotaped them and distributed the footage through Al Jazeera television and the Internet.

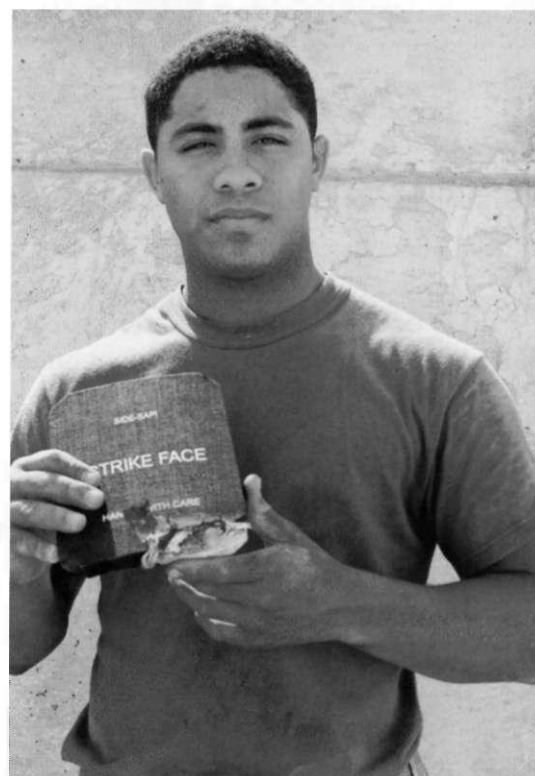
One of Iraq's more accomplished snipers, allegedly with 23 kills, told a British interviewer that he learned his skills from the Internet and video games—which was preposterous. In December 2006, the Sunni terrorist organization Ansar Al-Sunna announced the graduation of snipers from its own two-month training course. In July 2007, U.S. Army Brigadier General Kevin Bergner disclosed that Iran, too, was training Iraqi snipers, using shadowy Quds Force and Hezbollah veterans as instructors.

Vehicle-Borne Snipers

Mimicking the Washington, D.C., “snipers” of October 2002 (John Allen Muhammad and Lee Boyd Malvo) and the IRA's mobile snipers, a number of insurgent sniper teams modified vehicles as clandestine firing platforms. These vans and cars roamed the Baghdad area, seeking opportunistic engagements against dismounted U.S. patrols, temporarily halted vehicles, and soldiers manning traffic control points.

Inside the mobile shooting platform, the driver both spotted and videotaped the attacks, while his sniper, either sitting in the backseat or lying prone in the trunk, aimed. As quickly as he fired, his driver drove away, disappearing into the traffic.

These highly publicized attacks, propagandized to the maximum, caused U.S. forces to grow “sniper-conscious” and scrutinize their surroundings carefully, especially temporarily halted vehicles. Body armor helped a great deal, with side plates added to further reduce vulnerabilities. Many GIs survived solid hits to their body armor from powerful 7.62 x 54mm rounds, walking away with mere bruises. Kevlar helmets, too, saved a number of lives.



Lance Corporal Robert Dean survived a sniper's shot to his body armor's side plate. Many GIs have likewise escaped serious injury or death thanks to modern body armor.

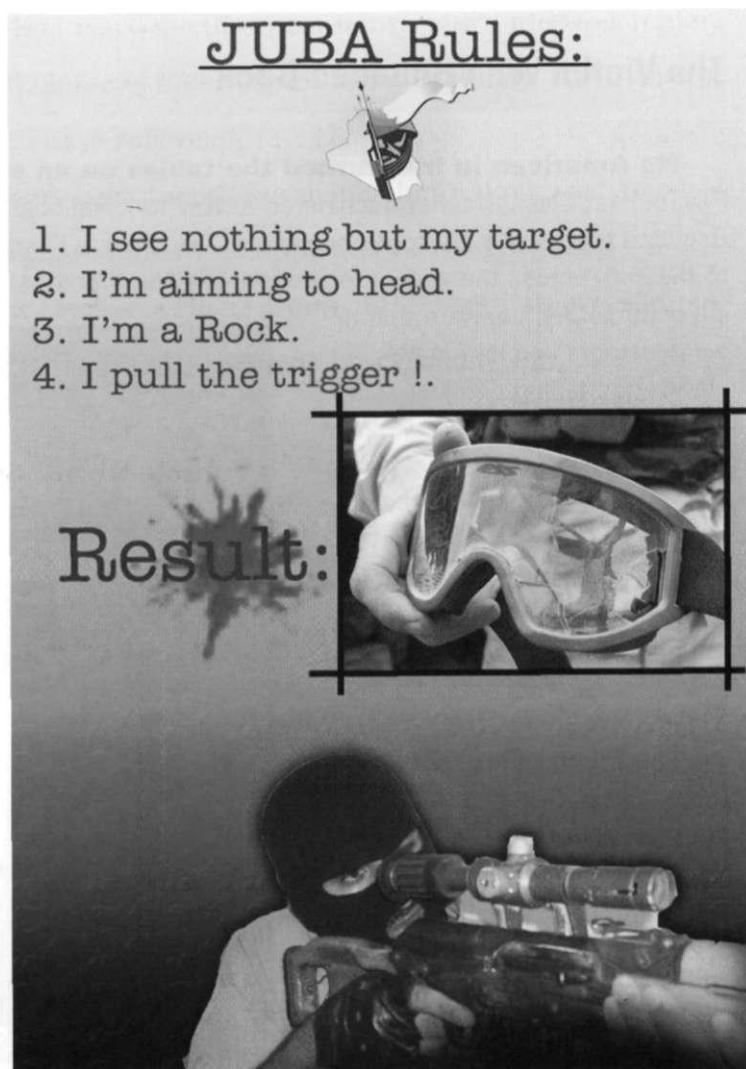
Juba, the Baghdad Sniper

As insurgent sniping attacks increased in Iraq, a myth arose that attributed these attacks not to

dozens of snipers but to one. Eventually, this myth had a name, “Juba,” which in some Arab dialects means “phantom”—a fitting title because he was as nebulous as that term. Juba, also called the Commander of the Baghdad Sniper Brigade, fully understood the propaganda value of sniping attacks, telling Al Jazeera television:

“The idea of filming the operations is very important, because the scene that shows the falling soldier when he is hit has more impact on the enemy than any other weapon, especially after we saw the great concern of the enemy and the Western media.”

Whenever an insurgent sniper scored a hit, their propaganda claimed that it was Juba; when a sniper missed or was killed by counterfire, it was *not* Juba. Understanding the propaganda subtext of Juba and his videos, in October 2006, I appeared on CNN International, broadcast live in Baghdad, to discuss these sniper attacks. While, indeed, I noted that some insurgents were capable shooters, I emphasized the propaganda element, observing, for instance, that some video shots had been manipulated to make it appear that Juba had shot a GI, when only body armor had been hit. This included footage of Army medic Stephen Tschiderer,



An insurgent sniper propaganda poster intended to instill fear among American troops.



The mythical Juba in a video broadcast on Al Jazeera television, in which he cited the author by name.

The Victim Who Bounced Back

No American in Iraq turned the tables on an enemy sniper quite so completely as did Private First Class Stephen Tschiderer, a New York National Guard medic, on 2 June 2005. Watching the Baghdad traffic pass his control point that day, Private First Class Tschiderer did not notice a silver van pull to the curb across the wide intersection. The New Yorker stood before his HMMV, speaking with his vehicle commander, unaware that a video camera had him in its viewfinder, taping him just as a 7.62 x 54mm bullet slammed into his chest, knocking him completely off his feet.

The terrorist sniper, aiming through a hidden cutout above the van's tailgate, did a double-take—the agile American had jumped to his feet, run around the HMMV, and was waving and pointing directly at the van. Gunfire engulfed the vehicle, thwarting its escape and sending the wounded sniper running. His driver jumped out, hands high in surrender.

Accompanying other U.S. troops, Private First Class Tschiderer followed the sniper's blood trail and found him collapsed in a nearby courtyard. Then, with complete professionalism, the sniper's would-be victim provided emergency medical aid to save the prisoner's life.

Tschiderer's body armor had caught the powerful slug, fired from a Russian SVD sniper rifle. "The only thing that was going through my mind was to take cover and locate the sniper's position," the quick-thinking Tschiderer said afterward. Interestingly, the van had been lined with mattresses to muffle the SVD's muzzle blast.



Medic Stephen Tschiderer survived a potentially deadly sniper attack and then saved the wounded sniper's life.



Firing from this van, an insurgent sniper shot Tschiderer's body armor. Note the shot-out tires.

who not only had survived unscathed but had also treated the insurgent sniper who'd tried to kill him (see "The Victim Who Bounced Back," page 648). Some of these snipers might be deadly, I pointed out, but not as deadly and omnipotent as they wanted us to believe.

My words struck a cord, for less than 48 hours later, the mythical Juba himself released a new video, citing me by name and (as a clever propaganda gambit) claiming that he used my book *The Ultimate Sniper* to instruct his snipers. When later I was coaching a group of U.S. Army snipers soon to depart for Iraq, I told them, "You are my response to Juba." I meant no propaganda by it.

Hunting Terrorist Snipers

The greatest challenge to hunting Iraq's insurgent snipers is that they are terrorists: they are oblivious to international law, they fight in civilian clothes, they sometimes employ human shields, and they will not hesitate to use a Red Cross ambulance to escape. They are unscrupulous, devious, and unaccountable.

Allied snipers' tactics evolved to meet that threat. For instance, Marine snipers dealt imaginatively with a distant gunman firing from a building's corner who grasped a child as a shield. "I shot 3 to 4 feet away from him, on the face of the building," explained one Marine, "which made the kid run away and the man come out to inspect the impact. That is when my team member shot the armed individual in the chest."

Initially, Allied snipers sought firing and observation positions only in unoccupied buildings, either under construction or damaged by previous fighting. Then they began approaching ordinary households in useful locations, arriving late at night and either not waking the occupants or reaching an accord with them. In some cases, one team member was tasked to play cards or backgammon with the homeowner to prevent "non-hostile compromise"—that is, a family member notifying neighbors of the team's presence. At other times, elaborate operations were staged to disguise the insertion of countersniper teams, such as platoon-sized sweeps from which the snipers crept away.

Much more so than in the past, surveillance became aerial, focusing on rooftop snipers and movements along side streets or alleys adjacent to Allied unit movements. The OH-58D helicopter's mast-mounted FLIR system, operating similarly to Stateside police choppers, detected and tracked suspected gunmen and vectored ground forces toward them. The Army and Marines also employed unmanned aerial vehicles (UAVs) to search rooftops and likely sniper positions. The scale of this latter effort was astounding—more than 1,000 UAVs were used in Iraq and Afghanistan in 2006, looking for roadside



A U.S. Army OH-58D helicopter with mast-mounted FLIR patrols Baghdad, watching for rooftop snipers.

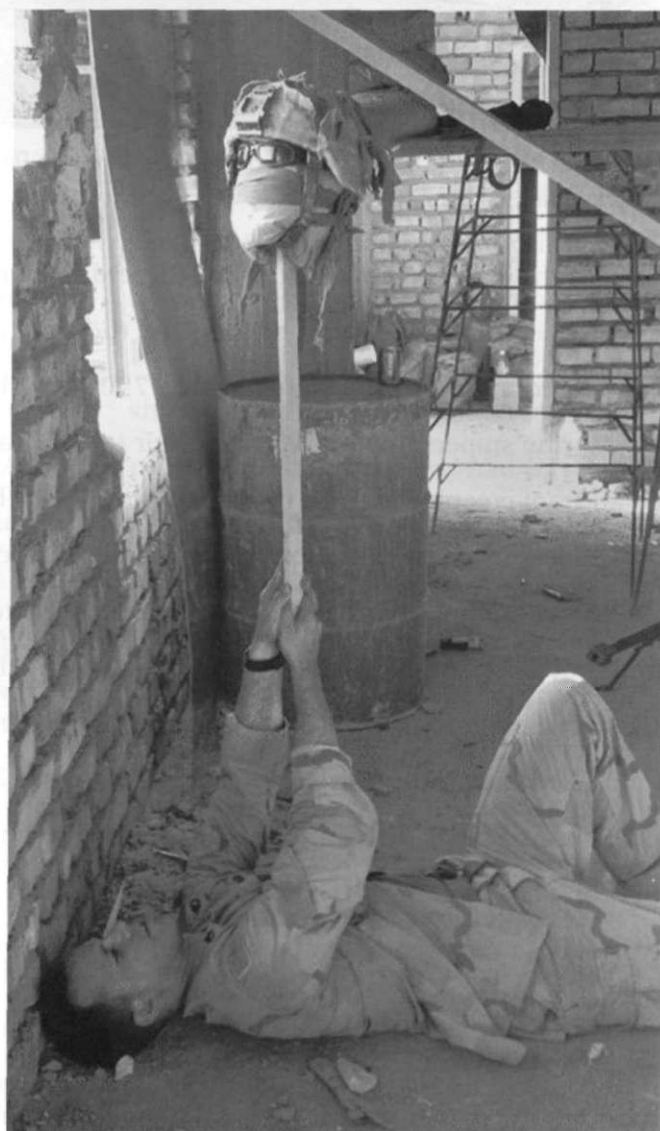
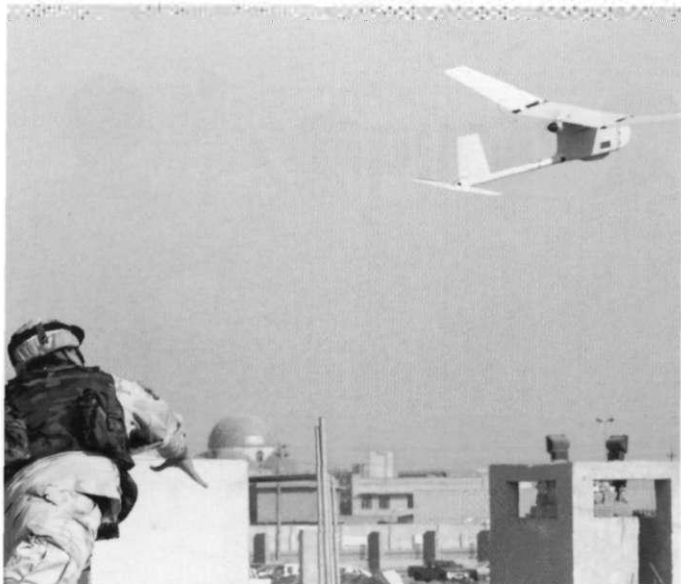
bombs, snipers, and a host of other threats. By early 2007, Baghdad's insurgent snipers concluded it was near suicide to attempt to fire from rooftops and abandoned that high ground.

A new sniper-detection system, the Boomerang, deployed to Iraq in 2006, offering considerable promise. This acoustic sensor array, mounted on a Humvee, analyzed the "crack" of a passing bullet to instantly backtrack its shooter, the system's computer-generated voice verbally alerting the occupants with a distance and direction. Multiple shooters or sounds that mimicked gunfire could not easily fool it; troops in Iraq reported that insurgent snipers hesitated even to shoot when a Boomerang was present.

Another countersniping tool was the Long Range Advanced Scout Surveillance System (LRAS), a vehicle-mounted thermal viewer of such incredible clarity that, for example, at 4,400 yards (3 miles) its operator could pick out armed individuals and even identify their armament. Further, the LRAS instantly disclosed their location with laser precision, enabling the operator to direct smart bombs or artillery on them.

Despite all these sensor systems and roving eyes, however, most countersniper successes still resulted from the tried and true: U.S. snipers intensely observing their surroundings. A 1st Cavalry Division sniper, Staff Sergeant Jeff Young, exploited the sun's shifting rays to pinpoint an Iraqi sniper. "We got lucky when the sun was going down," he told the *Stars and Stripes*. "It hit his scope at the right angle and we got a glare in our direction so we engaged it."

Another Army sniper, Sergeant Randall Davis, twice defeated opposing snipers, engaging them from a rooftop in Samarra. Firing a Designated Marksman's Rifle, he patiently outwaited an Iraqi



Top left: Flocks of remote-controlled unmanned aerial vehicles (UAVs), such as this Raven, search for snipers and IEDs in Iraq.

Top right: The Boomerang countersniper acoustic sensor system.

Above: The vehicle-mounted LRAS can pick out an individual rifleman miles away, night or day.

RIGHT: "THE OLD-FASHIONED WAY." A U.S. Army sniper attempts to lure an insurgent sniper's fire.



Lieutenant Richard Hawkins' platoon of the 101st Airborne Division aggressively pursued two snipers in Mosul, killing one and capturing the other.

sniper who had fired on Americans three days earlier. When finally the Iraqi reappeared, Davis' keen eyes picked him out of the shadows. As the Iraqi raised his SVD, just one shot and it was over. Davis eliminated another Iraqi sniper with a 750-yard shot with a Barrett M107 .50 caliber.

Marine snipers, too, have taken their toll on Iraqi gunmen. In Fallujah, Sergeant Sean Crane detected an Iraqi creeping along a rooftop and then saw him slide down a palm tree and pause for his rifle to be handed down to him. From more than two blocks away, Crane shot him twice, scoring his 11th kill.

Conventional infantrymen were taking their toll, too, by aggressively reacting to insurgent snipers and mobile shooting platforms. Instead of passively seeking cover, soldiers with Lieutenant Richard Hawkins' platoon in the 101st Airborne Division rushed two SVD-armed snipers, ran them to ground, and killed one and captured the other. Likewise, 25th Infantry Division soldiers manning a checkpoint in Mosul did the same thing, running down and killing another SVD-armed gunman. In Bab al-Sharqi, alert American troops spotted two mobile shooting platforms—one a garbage truck containing a Sudanese terrorist with a suppressed pistol, the other a modified automobile—and captured the drivers and shooters.

It was this kind of steady, meticulous, day-in, day-out effort that offered the greatest likelihood of winning the sniper war in Iraq. And, given reasonable support, that goal was entirely attainable.

SNIPING IN THE FUTURE

By the 21st century, some 250 years had passed since the French and Indian War, where riflemen first had demonstrated their ability to selectively engage targets at ranges greater than smooth-bore musket-armed infantrymen. As these sharpshooters' irregular tactics and rifled guns evolved, the tactics and armament of conventional infantry evolved too, following the same path but more slowly.

Within a hundred years—by the 1860s and the American Civil War—every infantryman had a rifle, so merely having a rifle did not constitute being a sharpshooter. Sharpshooters became specially selected or trained riflemen

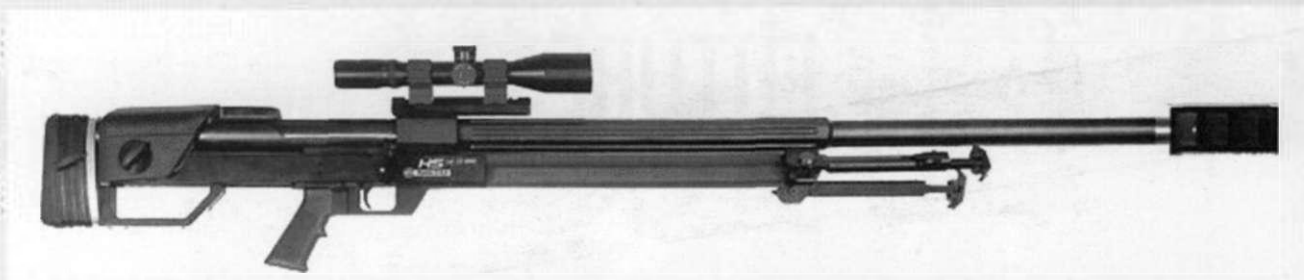
who fired at greater distances than regular infantrymen and skirmished or stalked independently rather than rigidly advancing shoulder to shoulder.

Just 50 years later, by World War I, it was necessary to have a scope atop his rifle for a man to be considered a sniper, while regular infantry operated much like sharpshooters had in the Civil War. This evolution continues today, with more and more optical sights appearing on infantrymen's rifles, making even squad-level marksmen more capable than World War I snipers. If this trend continues, the day is not distant when *every* infantryman will be a sniper. But by then, as happened in the Civil War and World War I, the definition of "sniper" will have evolved, too.

The Emerging Threat of Terrorist Snipers

As American forces found in Iraq and Israeli troops discovered during their 2006 incursion into southern Lebanon, some terrorist snipers were acquiring cutting-edge, sophisticated weapons.

In 2005 the Austrian government allowed gunmaker Steyr to sell 800 of its HS50 .50-caliber sniper rifles to Iran despite American objections. The Iranian government insisted that the weapons were for its border police, but within a year U.S. forces in Iraq already had captured 100 of them. It is well documented that Iran has long supported terrorist organizations such as Hezbollah, which operates primarily in Lebanon.



After Iran purchased 800 Steyr HS50 heavy sniper rifles, they soon began to appear in Iraq.



Marine Sergeant Aaron Torian examines a suppressed rifle his squad captured.



Note the Steyr SSG sniper rifle (left), captured near Fallujah.

And it was Hezbollah that provided further evidence of such growing capabilities. In 2006, Israeli soldiers captured a number of advanced sniper weapons in Lebanon, including a heavy-barreled Remington rifle chambered in .300 Winchester Magnum, with a Leupold sniperscope and a first-rate Generation 3 night vision device.

Inside Iraq, American forces have also captured advanced sniping weapons. In July 2006, troops with the 1st Battalion, 25th Marines, overtook two fleeing cars near Fallujah, in which they found an assortment of weapons, including a quality Steyr SSG sniper rifle. Two months earlier a Marine recon patrol south of Fallujah discovered a buried plastic cylinder containing a suppressed, scoped Mauser rifle. The suppressor was a handyman's device, not factory made, but it clearly signaled an intent to acquire this capability.

Ultimately, the effectiveness of such weapons will be determined by terrorist sniper training, especially if sympathetic countries covertly provide instruction—which may already have been happening.

A Gyro-Stabilized Rifle?

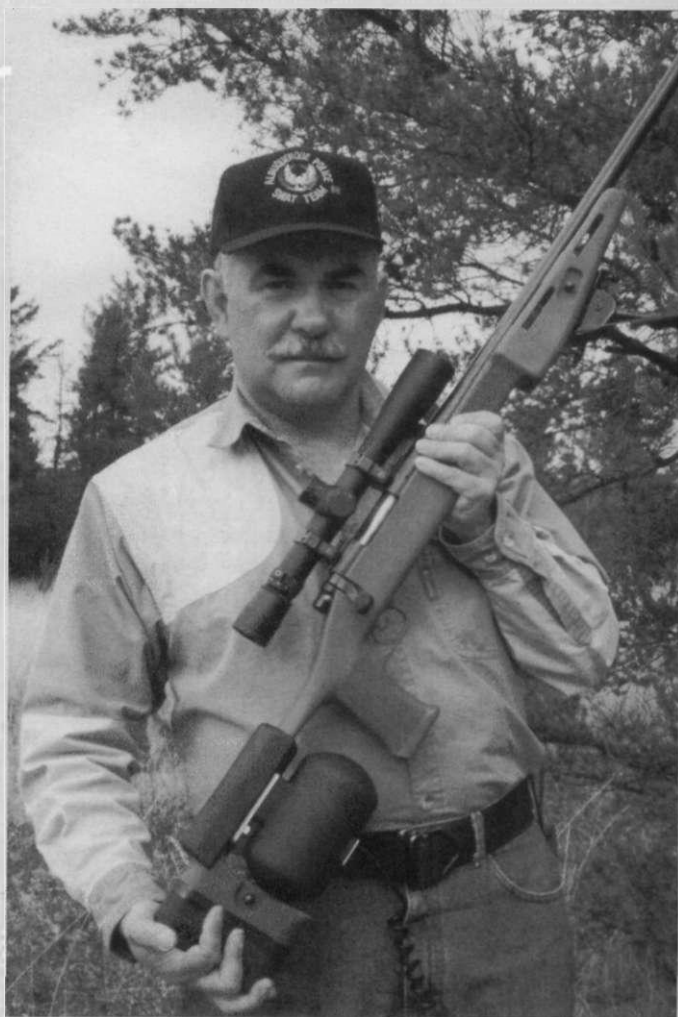
Some authorities believe that rifle technology has matured and there's little room for further evolution. Your author disagrees. In the late 1950s, firearms magazines were crammed with articles declaring that scoped rifles weren't suitable for hunting; a century earlier, similar experts insisted that no repeating rifle could ever equal the accuracy of a muzzleloader. Undoubtedly, the flintlock had its critics, too.

Having owned and fired rifles for better than a half century, I believe that all sorts of new technologies and emerging sciences and devices can incrementally improve a rifle's range, lethality, and hit probability.

In 2001, I tested one such possibility. Leasing an industrial-grade gyroscope, I had it fitted to a rifle and experimented with how it affected the rifle's balance and stability, depending on where it was mounted. Though it became burdensome, the gyroscope definitely had a stabilizing feel that only lengthy (and expensive) formal testing can quantify and further refine. That's worth pursuing.

Another innovation, which I proposed in a 1993 study, called for a scope reticle linked to a laser rangefinder that would electronically reset itself each time a sniper lazied a new target. With every shot he fired, the sniper would simply aim dead-on and hit. That's within the grasp of today's off-the-shelf technology.

And what else? The possibilities are limited only by our imaginations.



The author's experimental gyro-stabilized sniper rifle.

What will this future sniper be? The modern acceptance of—even reliance on—snipers was driven by their ability to place shots accurately, engage discrete targets, and infiltrate and observe without detection. These skills will continue to have great value in the War on Terror, in which dangers to innocent bystanders must be minimized and a soldier's presence undetectable.

But, equally, this modern sniper's critical characteristics—stealth, patience, and resourcefulness—make him a prime candidate to direct the next generation of air-delivered and remote-launched pre-

cision munitions. From the same firing position, this future sniper could engage targets with his match-grade rifle or place a Predator's missile on a terrorist hideout.

Yet no matter how snipers and their weapons evolve, the bedrock of their profession always shall be precision shooting, and in that they will continue the tradition of the great marksmen who preceded them, men like Timothy Murphy, Tom Plunkett, Benjamin Forsythe, "California Joe" Head, Billy Dixon, Alvin York, Francis Pegahmagabow, Billy Sing, Simo Hayha, Sepp Allerberger, Vasili Zaitsev, Carlos Hathcock, and many others.

That roster, I am sure, is far from complete.

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This book relied on more than 10,000 discrete pieces of information—newspaper clippings, notes, pages copied from books, magazine articles, histories, reports—a huge, quarter-century accumulation that filled 16 crates in my basement.

The project became immense because sharpshooters and snipers have existed primarily as individuals or small groups, not complete units about which histories usually are written. Rarely was I able to tap into a fabulous jewel like John A. Morrow's *The Confederate Whitworth Sharpshooters* or C.A. Stevens' *Berdan's United States Sharpshooters in the Army of the Potomac*. Typically, it was more like netting tiny fish, harvesting bits and pieces from thousands of

sources; hundreds of books yielded nuggets only here and there.

In recent years the Internet has become a fabulous resource, allowing keyword searches that contributed mightily to these pages. But they numbered so many that it's impossible to list them all here. For example, one commercial database, Accessible Archives, yielded more than a thousand Civil War sharpshooting newspaper accounts. Similarly, I surveyed the entire collection of World War I European *Stars and Stripes* tabloids, waded through hundreds of World War II Allied Intelligence Bureau reports, and pored over more than 100 Union and Confederate regimental histories, to mention only a few.

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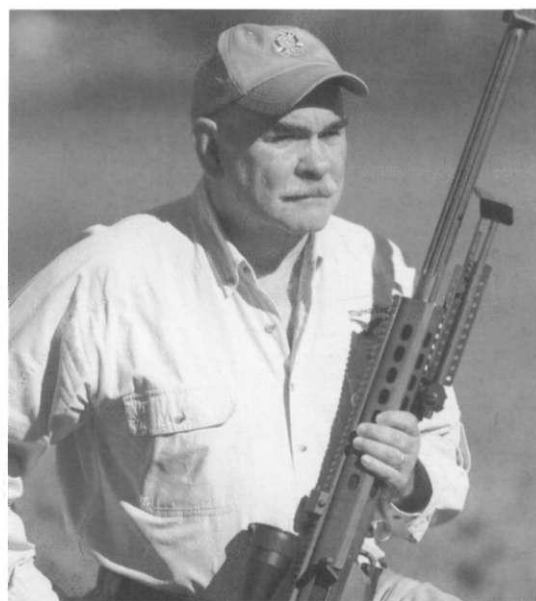
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ajor John L. Plaster, USAR (ret.), served three 1-year tours in Southeast Asia with the top-secret Special Forces covert operations unit, MACV-SOG. Qualified as a Green Beret weapons and communications NCO, he led strategic intelligence-gathering teams deep behind enemy lines in Laos and Cambodia on the Ho Chi Minh Trail. Plaster was wounded once and decorated four times for heroism. Leaving Vietnam as a staff sergeant, due to his extensive combat experience he received a direct commission as a reserve officer.

Combining what he'd learned of stealth, stalking, and camouflage with his postwar experiences as a competitive shooter, in 1983 he cofounded a Reserve Component sniper training program, which quickly became a major national school, instructing hundreds of students from all military services and many law enforcement agencies, including the FBI and U.S. Customs Service. He went on to be a precision rifle instructor at the prestigious Gunsite Training Center, a lecturer for American Special Operations schools, and twice served as Chief of Competition for the U.S. and European military and



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In 1998 he was honored as the Special Forces Association's "Man of the Year," and in 2004 was inducted into the Air Commando Association's Hall of Fame. Major Plaster has appeared in a dozen documentaries for the *History Channel*, the *Discovery Channel*, and British television and continues to work on books and firearms-related research.